



# **STIC Search Report**

## **Biotech-Chem Library**

**STIC Database Tracking Number: 97623**

**TO: Fiona Powers**  
**Location: CM1/3E09/3D19**  
**Art Unit: 1626**  
**Monday, June 30, 2003**

**Case Serial Number: 089346**

**From: Alex Waclawiw**  
**Location: Biotech-Chem Library**  
**CM1-6A02**  
**Phone: 308-4491**

**Alexandra.waclawiw@uspto.gov**

### **Search Notes**

97623

Access DB# \_\_\_\_\_

**SEARCH REQUEST FORM**

Scientific and Technical Information Center

Requester's Full Name: Fiona Powers Examiner #: \_\_\_\_\_ Date: 6/27/03  
 Art Unit: 1626 Phone Number 30 8-4535 Serial Number: 10/089,346  
 Mail Box and Bldg/Room Location: 3D19 Results Format Preferred (circle): PAPER DISK E-MAIL

**If more than one search is submitted, please prioritize searches in order of need.**

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Reactive Dye Compounds

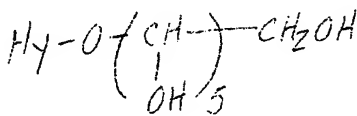
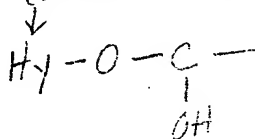
Inventors (please provide full names): Peter Broadbent, Dong He, David Lewis  
Gilles Genain & Taher Yousaf

Earliest Priority Filing Date: 10/1/99

*\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

*The corresponding International Publication is WO 01/25339.*

*contains at least one nitrogen*



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Searcher: Point of Contact  
Alexandra Wacław  
 Searcher Phone #: Technical Info. Specialist  
 Searcher Location: CM1 6A02 Tel: 308-4491

Date Searcher Picked Up: 6-30-03

Date Completed: 6-30-03

Searcher Prep & Review Time: 21

Clerical Prep Time: \_\_\_\_\_

Online Time: 6:1

**Type of Search**

NA Sequence (#) \_\_\_\_\_

AA Sequence (#) \_\_\_\_\_

Structure (#) 2

Bibliographic \_\_\_\_\_

Litigation \_\_\_\_\_

Fulltext \_\_\_\_\_

Patent Family \_\_\_\_\_

Other \_\_\_\_\_

**Vendors and cost where applicable**

STN \_\_\_\_\_

Dialog \_\_\_\_\_

Questel/Orbit \_\_\_\_\_

Dr.Link \_\_\_\_\_

Lexis/Nexis \_\_\_\_\_

Sequence Systems \_\_\_\_\_

WWW/Internet \_\_\_\_\_

Other (specify) \_\_\_\_\_

① 26  
15  
27  
6.1

Fiona Powers 10/089,346

=> d his

(FILE 'HCAPLUS' ENTERED AT 11:33:53 ON 30 JUN 2003)  
DEL HIS Y

FILE 'REGISTRY' ENTERED AT 11:35:13 ON 30 JUN 2003  
ACT FIONA/A

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L1 STR  
L2 SCR 1700  
L3 86 SEA FILE=REGISTRY SSS FUL L1 AND L2  
-----

L4 7 S L3 AND O>6  
L5 1 S 186537-51-9

FILE 'HCAPLUS' ENTERED AT 11:37:46 ON 30 JUN 2003

L6 80 S L3  
L7 5 S L6 AND (DYE# OR DYEING OR DYE#/AB OR DYEING/AB OR CHROMOPHO?  
L8 1 S L5

=> fil reg

FILE 'REGISTRY' ENTERED AT 11:39:14 ON 30 JUN 2003  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 29 JUN 2003 HIGHEST RN 539790-82-4  
DICTIONARY FILE UPDATES: 29 JUN 2003 HIGHEST RN 539790-82-4

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP  
PROPERTIES for more information. See STNote 27, Searching Properties  
in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> d que stat l3

L1 STR

Hy—O—C—OH  
1 2 3 4

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED  
ECOUNT IS M1 N AT 1

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE

L2 SCR 1700

L3 86 SEA FILE=REGISTRY SSS FUL L1 AND L2

100.0% PROCESSED 114738 ITERATIONS  
SEARCH TIME: 00.00.08

86 ANSWERS

=> d his 14-15

(FILE 'REGISTRY' ENTERED AT 11:35:13 ON 30 JUN 2003)

L4 7 S L3 AND O>6  
L5 1 S 186537-51-9

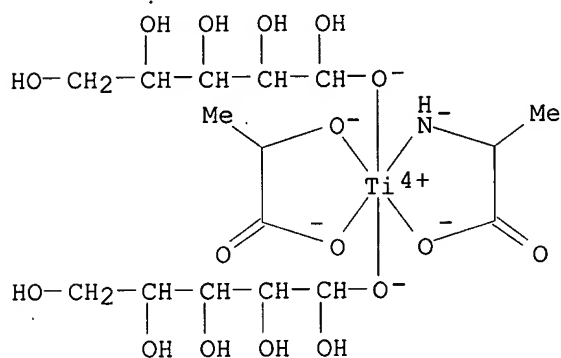
=> d ide can l5

L5 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS  
RN 186537-51-9 REGISTRY

→ covers both structures

→ above answer with (CH)<sub>5</sub>  
OH<sub>5</sub>

CN Titanate(2-), (alaninato-.kappa.N,.kappa.O)[2-(hydroxy-.kappa.O)propanoato-.kappa.O]bis(1,1,2,3,4,5-pentanehexolato-.kappa.Ol)-, diammonium, (T-4)-(9CI) (CA INDEX NAME)  
 MF C16 H31 N O17 Ti . 2 H4 N  
 CI CCS  
 SR CA  
 LC STN Files: CA, CAPLUS



● 2 NH<sub>4</sub><sup>+</sup>

1 REFERENCES IN FILE CA (1957 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

REFERENCE 1: 126:164182

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 11:39:32 ON 30 JUN 2003

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FILE COVERS 1907 - 30 Jun 2003 VOL 139 ISS 1

FILE LAST UPDATED: 29 Jun 2003 (20030629/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> d his 16-

(FILE 'HCAPLUS' ENTERED AT 11:37:46 ON 30 JUN 2003)

L6 80 S L3  
 L7 5 S L6 AND (DYE# OR DYEING OR DYE#/AB OR DYEING/AB OR CHROMOPHO?  
 L8 1 S L5

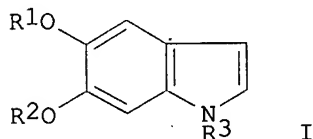
FILE 'REGISTRY' ENTERED AT 11:39:14 ON 30 JUN 2003

FILE 'HCAPLUS' ENTERED AT 11:39:32 ON 30 JUN 2003

=&gt; d .ca hitstr 17 1-5;d .ca hitstr 18 1

L7 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1996:746467 HCAPLUS  
 DOCUMENT NUMBER: 126:59862  
 TITLE: Preparation of indole derivatives as **dyes**  
 INVENTOR(S): Kamimura, Shoji; Aizawa, Masako; Nishikawa, Kazuko  
 PATENT ASSIGNEE(S): Kishi Kasei Kk, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08245584	A2	19960924	JP 1995-336865	19951225
PRIORITY APPLN. INFO.:			JP 1995-2065	19950110
OTHER SOURCE(S):		MARPAT 126:59862		
GI				



AB The title compds. I [R1 - R3 = H, R4OCO, etc.; or R1R2 = COCH2; a proviso is given] are prepd. I are highly stable. A piece of wood was **dyed** black by treatment with a soln. contg. I [R1 = R2 = tert-BuOCO; R3 = H] and HCl.

IC ICM C07D209-08

ICS A61K007-13; C07D491-056; C09B057-00; D06P003-08

CC 27-11 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 41

ST indole prepn **dye**IT **Dyes**(prepn. of indole derivs. as **dyes**)

IT 96-32-2, Methyl bromoacetate 109-90-0, Ethyl isocyanate 541-41-3,

Ethyl chlorocarbonate 3131-52-0, 5,6-Dihydroxyindole 18997-19-8,

Chloromethyl pivalate 24424-99-5, Di-tert-butyl dicarbonate

RL: RCT (Reactant); RACT (Reactant or reagent)

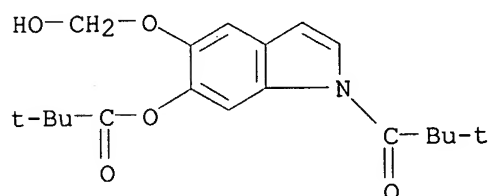
(prepn. of indole derivs. as **dyes**)

IT 184165-52-4P 184165-53-5P 184165-54-6P 184165-55-7P 184165-56-8P

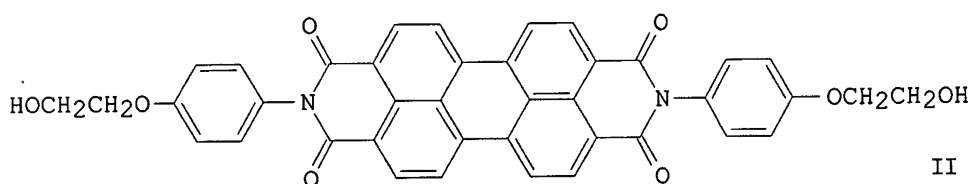
184165-57-9P 184165-58-0P 184165-59-1P 184165-60-4P 184165-61-5P

184165-62-6P 184165-63-7P, 6H-1,4-Dioxino[2,3-f]indol-3(2H)-one

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of indole derivs. as **dyes**)  
 IT 184165-62-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of indole derivs. as **dyes**)  
 RN 184165-62-6 HCAPLUS  
 CN Propanoic acid, 2,2-dimethyl-, 1-(2,2-dimethyl-1-oxopropyl)-5-  
 (hydroxymethoxy)-1H-indol-6-yl ester (9CI) (CA INDEX NAME)

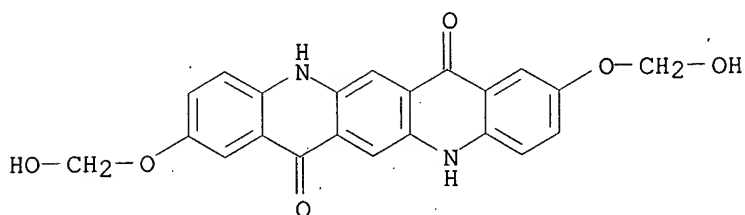


L7 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1979:105588 HCAPLUS  
 DOCUMENT NUMBER: 90:105588  
 TITLE: Synthesis of macromolecules from monomers derived from  
**dyes**. XVII. Synthesis of structurally  
 colored poly(ethylene terephthalate)  
 AUTHOR(S): Le Pape, Alain; Marechal, Ernest  
 CORPORATE SOURCE: Prod. Chim. Ugine Kuhlmann, Oissel, Fr.  
 SOURCE: Bulletin de la Societe Chimique de France (1978),  
 (5-6, Pt. 2), 263-70  
 CODEN: BSCFAS; ISSN: 0037-8968  
 DOCUMENT TYPE: Journal  
 LANGUAGE: French  
 GI

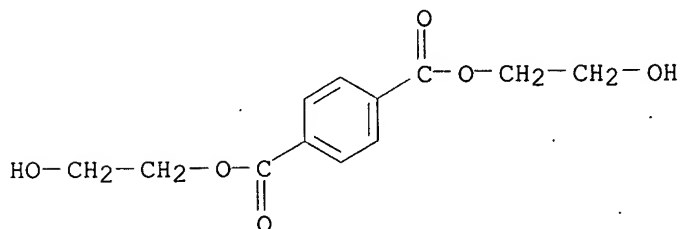


AB Poly(ethylene terephthalate) contg. diimide, naphthamide, or quinacridone  
 nuclei as part of the polymer chain was prepd. by copolymn. of  
 bis(2-hydroxyethyl) terephthalate (I) with the corresponding **dye**  
 contg. acid or alc. groups, and upon extrusion gave colored fibers showing  
 no **dye** extn. For example, a spinnable copolymer [69462-77-7]  
 of I and II was prepd. with intrinsic viscosity 0.52 dL/g (o-ClC6H4OH,  
 25.degree.) and m.p. 247.degree., giving a reddish orange fluorescent  
 fiber on extrusion, showing no color extn.  
 CC 40-6 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)  
 Section cross-reference(s): 35  
 ST **dye** copolyester fiber; monomer **dye** polyester fiber  
 IT **Dyes**

(incorporation of monomeric, in copolyester fibers)  
 IT Polyester fibers, preparation  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of, from **dye** monomers and bis(hydroxyethyl)  
 terephthalate)  
 IT 69462-72-2 69462-73-3 69462-74-4 69462-75-5 **69462-76-6**  
 69462-77-7  
 RL: USES (Uses)  
 (fiber, structurally colored)  
 IT **69462-76-6**  
 RL: USES (Uses)  
 (fiber, structurally colored)  
 RN 69462-76-6 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, bis(2-hydroxyethyl) ester, polymer with  
 5,12-dihydro-2,9-bis(hydroxymethoxy)quino[2,3-b]acridine-7,14-dione (9CI)  
 (CA INDEX NAME)  
 CM 1  
 CRN 63266-46-6  
 CMF C22 H16 N2 O6



CM 2  
 CRN 959-26-2  
 CMF C12 H14 O6

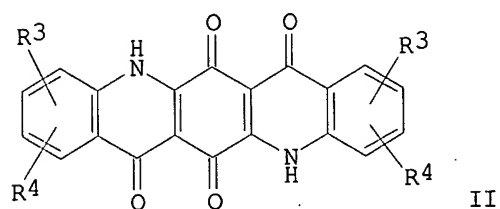
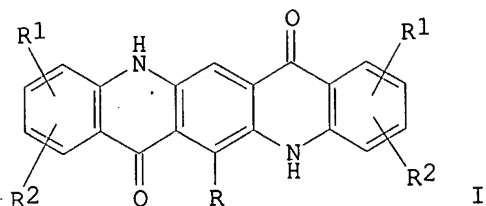


L7 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1977:469717 HCAPLUS  
 DOCUMENT NUMBER: 87:69717  
 TITLE: Synthesis of macromolecular compounds with colored  
 monomer units in the chain. Synthesis of  
 copolycondensable **dyes** derived from  
 quinacridones  
 AUTHOR(S): Le Pape, Alain; Marechal, Ernest  
 CORPORATE SOURCE: Oissel, Fr.



SOURCE: Comptes Rendus des Seances de l'Academie des Sciences,  
Serie C: Sciences Chimiques (1977), 284(16), 619-22  
CODEN: CHDCAQ; ISSN: 0567-6541

DOCUMENT TYPE: Journal  
LANGUAGE: French  
GI



AB Quinacridones I (R = H, OH; R1 = OCH2OH, CO2H, Co2CH2CH2OH, CO2Et; R2 = H, Cl) and II [R3 = CO2Et, NHAc, OCH2CH2OH; MeO; R4 = H, Cl, Me, MeO; (R3R4) = benzo] were prepd. and were useful as pigments and as copolycondensable **dyes** with polyester precursors having high thermal stability with good soly. in polyester melts and DMF.

CC 40-6 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

ST quinacridone pigment polycondensable **dye**; polyester fiber polycondensable **dye**

IT Polyester fibers, uses and miscellaneous  
RL: USES (Uses)  
(**dyes** for, copolycondensable quinacridone derivs. as)

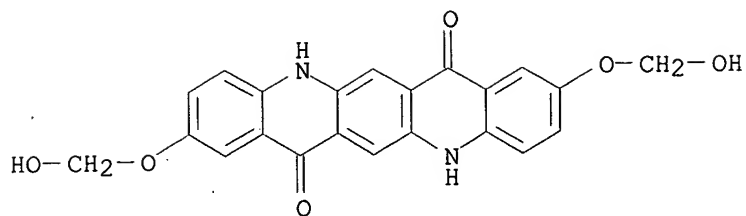
IT **Dyes**  
(quinacridone derivs., polycondensable with polyesters)

IT 33323-85-2P 38615-36-0P 63266-42-2P 63266-44-4P **63266-46-6P**  
63267-05-0P 63385-73-9P 63404-64-8P 63404-65-9P 63404-66-0P  
63404-67-1P 63404-68-2P 63404-69-3P 63404-70-6P 63404-71-7P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

IT **63266-46-6P**  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

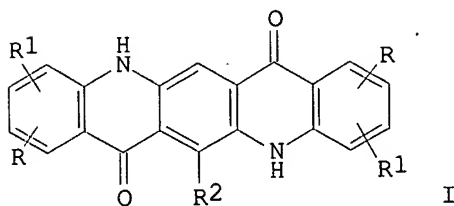
RN 63266-46-6 HCAPLUS

CN Quino[2,3-b]acridine-7,14-dione, 5,12-dihydro-2,9-bis(hydroxymethoxy)-  
(9CI) (CA INDEX NAME)



L7 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1977:454528 HCAPLUS  
 DOCUMENT NUMBER: 87:54528  
 TITLE: Quinacridones for **dyeing** polyesters  
 INVENTOR(S): Le Pape, Alain  
 PATENT ASSIGNEE(S): Uguine Kuhlmann, Fr.  
 SOURCE: Ger. Offen., 13 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2647425	A1	19770428	DE 1976-2647425	19761020
FR 2328706	A1	19770520	FR 1975-32445	19751023
FR 2328706	B1	19790105		
BR 7606928	A	19770830	BR 1976-6928	19761015
NL 7611637	A	19770426	NL 1976-11637	19761021
BE 847582	A1	19770422	BE 1976-171749	19761022
JP 52084223	A2	19770713	JP 1976-127148	19761022
PRIORITY APPLN. INFO.: GI			FR 1975-32445	19751023



AB Quinacridones I (R = HOCH<sub>2</sub>O, CO<sub>2</sub>Et; R<sub>1</sub> = H, Cl; R<sub>2</sub> = H, OH) have high soly. in polyesters and good heat stability, and can be used to color polyester either by mass **dyeing** or incorporation in the polymer chain. The **dyes** are prepd. by known methods. Thus, condensation of 2,5-dicarbethoxy-1,4-cyclohexanedione [787-07-5] with 4-(hydroxymethoxy)aniline [63266-98-8], alk. oxidn. of the product [63267-06-1], acidification, and cyclization at 100-20.degree. in polyphosphoric acid gave 2,9-bis(hydroxymethoxy)quinacridone (II) [63266-46-6] which **dye**d polyester violet-red. Copolycondensation of II with di-Me. terephthalate and HOCH<sub>2</sub>CH<sub>2</sub>OH gave a violet-red copolyester [63266-47-7].

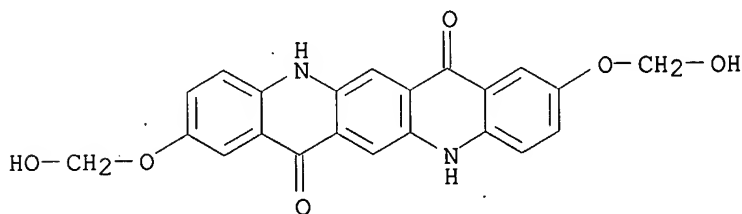
IC C09B048-00

CC 40-6 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)  
 ST quinacridone **dye** prepn; polyester **dye** quinacridone;  
 monomer quinacridone **dye**; hydroxyquinacridone **dye**;  
 carbethoxyquinacridone **dye**; chloroquinacridone **dye**  
 IT Polyester fibers, uses and miscellaneous  
 RL: USES (Uses)  
 (**dyes** for, quinacridone derivs. as)  
 IT Polyesters, preparation  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of, from polymerizable quinacridone **dyes**)  
 IT **Dyes**  
 (quinacridone derivs., for incorporation in polyester by mass  
**dyeing** or copolymerization)  
 IT Monomers  
 RL: USES (Uses)  
 (quinacridone **dye** derivs.)  
 IT 63266-42-2  
 RL: USES (Uses)  
 (mass **dyeing** by, of polyester fibers)  
 IT 63266-41-1P 63266-43-3P 63266-45-5P **63266-47-7P**  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of)  
 IT 33323-85-2P **63266-46-6P** 63267-05-0P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of, for **dyeing** polyester)  
 IT **63266-47-7P**  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (prepn. of)  
 RN 63266-47-7 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, dimethyl ester, polymer with  
 5,12-dihydro-2,9-bis(hydroxymethoxy)quino[2,3-b]acridine-7,14-dione and  
 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 63266-46-6

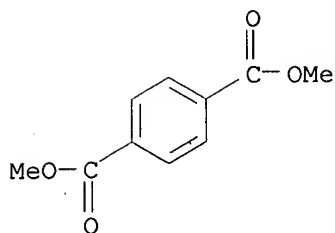
CMF C22 H16 N2 O6



CM 2

CRN 120-61-6

CMF C10 H10 O4



CM 3

CRN 107-21-1  
CMF C2 H6 O2

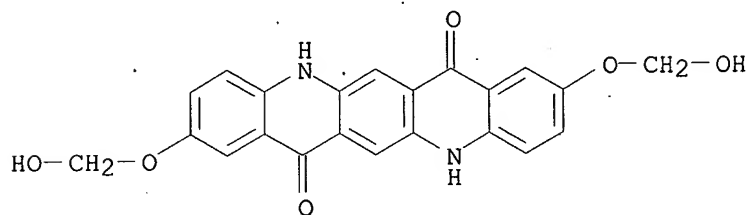
HO-CH<sub>2</sub>-CH<sub>2</sub>-OH

IT 63266-46-6P

RL: IMF (Industrial manufacture); PREP (Preparation)  
(prepn. of, for **dyeing** polyester)

RN 63266-46-6 HCAPLUS

CN Quino[2,3-b]acridine-7,14-dione, 5,12-dihydro-2,9-bis(hydroxymethoxy)-  
(9CI) (CA INDEX NAME)



L7 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1977:454445 HCAPLUS

DOCUMENT NUMBER: 87:54445

TITLE: Colored copolyesters

INVENTOR(S): Le Pape, Alain

PATENT ASSIGNEE(S): Ugine Kuhlmann, Fr.

SOURCE: Ger. Offen., 33 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2647426	A1	19770428	DE 1976-2647426	19761020
FR 2328728	A1	19770520	FR 1975-32448	19751023
FR 2328728	B1	19790504		
US 4049376	A	19770920	US 1976-729749	19761006
BR 7606930	A	19770830	BR 1976-6930	19761015

NL 7611638	A	19770426	NL 1976-11638	19761021
BE 847584	A1	19770422	BE 1976-171751	19761022
JP 52084281	A2	19770713	JP 1976-127147	19761022
GB 1528346	A	19781011	GB 1976-43870	19761022

PRIORITY APPLN. INFO.: FR 1975-32448 19751023

AB Naphthalimide, quinacridone, naphthoylenebenzimidazole, and dioxazine **dyes** contg. two HOCH<sub>2</sub>CH<sub>2</sub>, HOCH<sub>2</sub>O, or CO<sub>2</sub>Et groups are copolycondensed with di-Me terephthalate (I) and HOCH<sub>2</sub>CH<sub>2</sub>OH (II) to give colored polyesters which can be spun or used for mass **dyeing**. Thus, I 100, II 100, MeOH 5, and Cd(OAc)<sub>2</sub> 0.04 part was heated to 220.degree. while distg. MeOH, 0.02 part (BuO)<sub>4</sub> Ti and 0.5 part N-(hydroxyethyl)-4-(hydroxyethylamino)-1,8-naphthalimide added, and the mixt. heated at 230-40.degree. and finally at 275.degree./0.05 torr to give copolyester (III) [63410-46-8] m. 255.degree. (pure poly(ethylene terephthalate) m. 254.degree.) which was spun to fluorescent yellow-green yarn with high color fastness. No color change was obsd. when III was heated under N for 5 h at 280.degree..

IC C08L067-02

CC 39-2 (Textiles)

ST polyethylene terephthalate colored; **dye** polymerizable copolyester; fiber polyester colored

IT Polyesters, preparation

RL: PREP (Preparation)

(**dye**-modified)

IT Polyester fibers, uses and miscellaneous

RL: USES (Uses)

(**dyeing** of, by modification with polymerizable **dyes**)

IT **Dyes**

(polymerizable polycyclic, polyesters from)

IT 25038-59-9, uses and miscellaneous

RL: USES (Uses)

(**dyeing** of, by modification with polymerizable **dyes**)

IT 33323-85-2P 63266-41-1P 63266-42-2P 63266-43-3P 63266-45-5P

**63266-46-6P 63266-47-7P** 63353-58-2P 63385-78-4P

63397-69-3P 63410-32-2P 63410-33-3P 63410-34-4P 63410-35-5P

63410-36-6P 63410-45-7P 63438-95-9P 63526-24-9P 63527-54-8P

RL: IMF (Industrial manufacture); PREP (Preparation)

(prepn. of)

IT 141-43-5, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, with bromonaphthalenes, polymerizable **dyes** from)

IT **63266-46-6P 63266-47-7P**

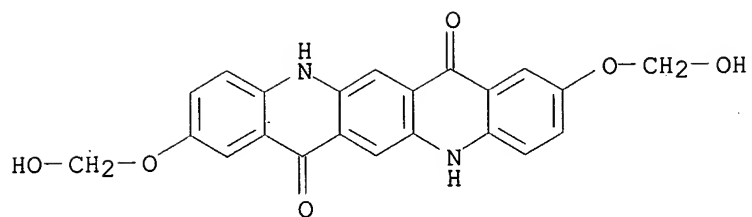
RL: IMF (Industrial manufacture); PREP (Preparation)

(prepn. of)

RN 63266-46-6 HCAPLUS

CN Quino[2,3-b]acridine-7,14-dione, 5,12-dihydro-2,9-bis(hydroxymethoxy)-(9CI) (CA INDEX NAME)

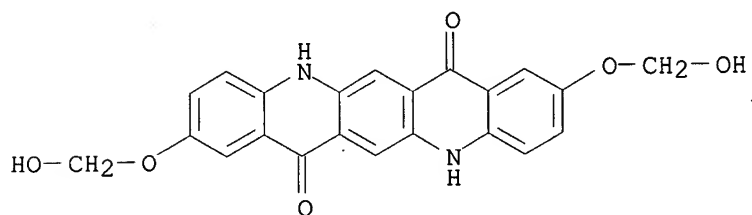
Fiona Powers 10/089,346



RN 63266-47-7 HCAPLUS  
CN 1,4-Benzenedicarboxylic acid, dimethyl ester, polymer with  
5,12-dihydro-2,9-bis(hydroxymethoxy)quino[2,3-b]acridine-7,14-dione and  
1,2-ethanediol (9CI) (CA INDEX NAME)

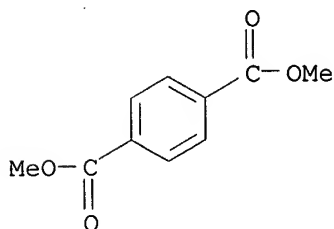
CM 1

CRN 63266-46-6  
CMF C22 H16 N2 O6



CM 2

CRN 120-61-6  
CMF C10 H10 O4



CM 3

CRN 107-21-1  
CMF C2 H6 O2

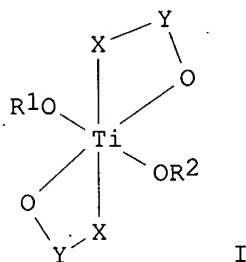
HO-CH<sub>2</sub>-CH<sub>2</sub>-OH

L8 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2003 ACS

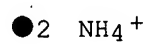
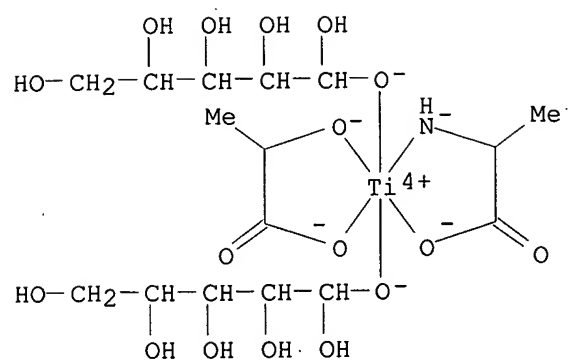
ACCESSION NUMBER: 1997:134191 HCAPLUS  
 DOCUMENT NUMBER: 126:164182  
 TITLE: Silver halide photography photosensitive material  
 INVENTOR(S): Yamatani, Yorihiro  
 PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08314047	A2	19961129	JP 1995-115791	19950515
PRIORITY APPLN. INFO.:			JP 1995-115791	19950515

GI



AB The material comprises a support and .gtoreq.1 photosensitive Ag halide emulsion layer contg. a Se-sensitized Ag halide grain, and a Ti complex I [R1-2 = H, C1-10 alkyl, -CH2(CHOH)nCH2R3; Y = C2-6 linear bonding group; X = O, N; Z = (NR9R10R11R12)+; I = 1, 2; n = integer of 0-4; R3 = H, OH; R9-12 = H, C1-4 alkyl]. The material inhibits generation of roller marks and surface luster by processing by auto-processing machines.  
 IC ICM G03C001-09  
 ICS G03C001-035; G03C001-34  
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT 3878-44-2, Triphenylphosphine selenide 186537-50-8 **186537-51-9**  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (in silver halide photog. photosensitive material)  
 IT **186537-51-9**  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (in silver halide photog. photosensitive material)  
 RN 186537-51-9 HCAPLUS  
 CN Titanate(2-), (alaninato-.kappa.N,.kappa.O) [2-(hydroxy-.kappa.O)propanoato-.kappa.O]bis(1,1,2,3,4,5-pentanehexolato-.kappa.O1)-, diammonium, (T-4)-(9CI) (CA INDEX NAME)





Fiona Powers 10/089,346

=> d his

(FILE 'REGISTRY' ENTERED AT 11:40:07 ON 30 JUN 2003)

DEL HIS.Y  
ACT FIONA2/A

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L1 STR  
L2 SCR 1700  
L3 2996 SEA FILE=REGISTRY SSS FUL L2 AND L1

-----  
ACT FIONA3/A  
-----

L4 STR  
L5 SCR 1700  
L6 ( 2996) SEA FILE=REGISTRY SSS FUL L5 AND L4  
L7 STR  
L8 145 SEA FILE=REGISTRY SUB=L6 SSS FUL L7  
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FILE 'HCAPLUS' ENTERED AT 11:40:54 ON 30 JUN 2003

L9 104 S L8  
L10 38905 S L3  
L11 230301 S DYE? OR CHROMOPHOR?  
L12 2 S L9 AND L11  
L13 609 S L10 AND L11  
L14 10397 S REACTIVE? (L) DYE#  
L15 19 S L13 AND L14  
L16 10750 S CHROMOPHOR?  
L17 5 S L16 AND L10  
L18 0 S L14 AND L17

=> fil reg

FILE 'REGISTRY' ENTERED AT 11:49:01 ON 30 JUN 2003

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 29 JUN 2003 HIGHEST RN 539790-82-4

DICTIONARY FILE UPDATES: 29 JUN 2003 HIGHEST RN 539790-82-4

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

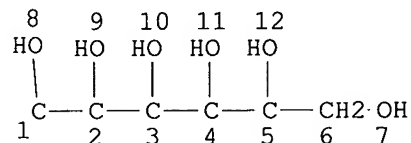
Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:

<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> d que stat 13

L1 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

L2. SCR 1700

L3 2996 SEA FILE=REGISTRY SSS FUL L2 AND L1

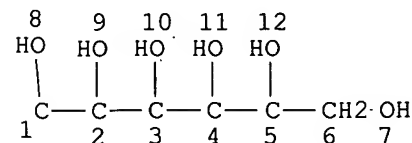
100.0% PROCESSED 68142 ITERATIONS

2996 ANSWERS

SEARCH TIME: 00.00.37

=> d que stat 18

L4 STR



NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE  
L5 SCR 1700  
L6 ( 2996) SEA FILE=REGISTRY SSS FUL L5 AND L4  
L7 STR

Hy 1

NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED  
ECOUNT IS M1 N AT 1

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 1

STEREO ATTRIBUTES: NONE  
L8 145 SEA FILE=REGISTRY SUB=L6 SSS FUL L7

100.0% PROCESSED 2996 ITERATIONS  
SEARCH TIME: 00.00.46

*Sugar with  
Nitrogen containing  
heterocycle*

145 ANSWERS

=> fil hcaplus  
FILE 'HCAPLUS' ENTERED AT 11:49:16 ON 30 JUN 2003  
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FILE COVERS 1907 - 30 Jun 2003 VOL 139 ISS 1  
FILE LAST UPDATED: 29 Jun 2003 (20030629/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> d his 19-

(FILE 'REGISTRY' ENTERED AT 11:40:07 ON 30 JUN 2003)

FILE 'HCAPLUS' ENTERED AT 11:40:54 ON 30 JUN 2003

L9 104 S L8  
 L10 38905 S L3  
 L11 230301 S DYE? OR CHROMOPHOR?  
 L12 2 S L9 AND L11  
 L13 609 S L10 AND L11  
 L14 10397 S REACTIVE? (L) DYE#  
 L15 19 S L13 AND L14  
 L16 10750 S CHROMOPHOR?  
 L17 5 S L16 AND L10  
 L18 0 S L14 AND L17

FILE 'REGISTRY' ENTERED AT 11:49:01 ON 30 JUN 2003

FILE 'HCAPLUS' ENTERED AT 11:49:16 ON 30 JUN 2003

=> d .ca hitstr l12 1-2;d .ca hitstr l15 1-19

L12 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2003:282665 HCAPLUS

DOCUMENT NUMBER: 138:305627

TITLE: Storage-stable water-thinned inks with clear hue and excellent fastnesses to light and moisture

INVENTOR(S): Kohgo, Osamu; Naruse, Hiroshi; Fujii, Kenichi; Misawa, Tsutami; Ogiso, Akira; Saito, Yasunori; Suzuki, Rihoko

PATENT ASSIGNEE(S): Mitsui Chemicals, Inc., Japan

SOURCE: PCT Int. Appl., 109 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003029363	A1	20030410	WO 2002-JP10054	20020927

W: CN, KR, US

RW: DE, FR, GB

PRIORITY APPLN. INFO.:

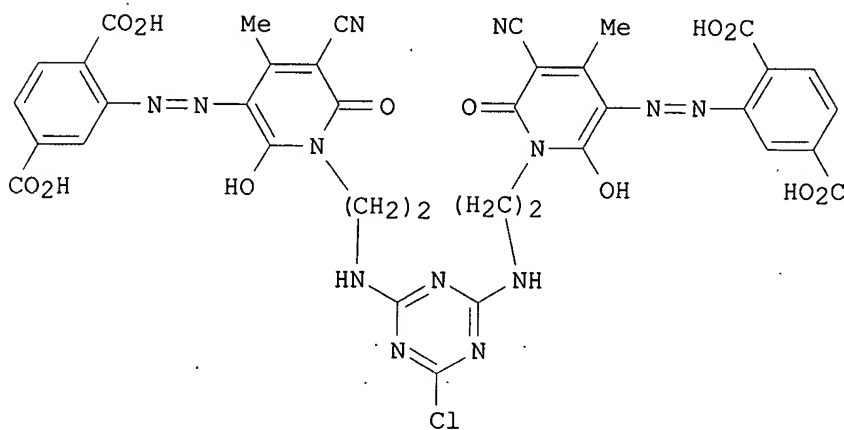
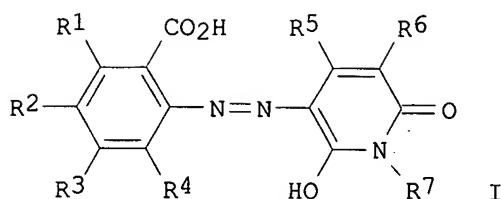
JP 2001-301901 A 20010928

JP 2001-301903 A 20010928

JP 2002-90267 A 20020328

OTHER SOURCE(S): MARPAT 138:305627

GI



AB The inks contain yellow colorants I [R1-R5, R7 = H, halo, (un)substituted alkyl, alkoxy, alkenyl, aryl, OH, CO<sub>2</sub>H, SO<sub>3</sub>H, CONR<sub>8</sub>R<sub>9</sub>, COXR<sub>10</sub>; R6 = H, CN, aminocarbonyl, sulfomethyl, SO<sub>3</sub>H; R8-R10 = H, (un)substituted alkyl, aryl, heterocyclic ring; R8 and R9 may be (un)substituted alkylene and link together to form a ring; X = O, S, linking group] or salts thereof. Thus, Na salt of II ( $\lambda_{\text{max}}$  440 nm) was prepd. and formulated into an aq. ink showing no clogging after storage for 3 mo at 40.degree. when used in jet printing.

IC ICM C09D011-00

ICS C09B029-42; C09B033-12; C09B033-24; C07D213-72; C07D213-85; C07D401-14; C07D487-04

CC 42-12 (Coatings, Inks, and Related Products)

Section cross-reference(s): 41

ST yellow water thinned jet printing ink; lightfastness water thinned jet printing ink; moisture fastness water thinned jet printing ink; azo yellow dye aq jet printing ink

IT Azo dyes

(yellow; storage-stable water-thinned ink-jet inks with clear hue and excellent fastnesses to light and moisture)

IT	508190-87-2	508190-88-3	508190-89-4	508190-90-7	508190-91-8
	508190-92-9	508190-93-0	508190-94-1	508190-95-2	
	508190-96-3	508190-97-4	508190-98-5	508190-99-6	508191-00-2
	508191-01-3	508191-02-4	508191-03-5	508191-05-7	508191-06-8
	508191-08-0	508191-10-4	508191-12-6	508191-14-8	508191-16-0
	508191-18-2	508191-19-3	508191-21-7	508191-22-8	
	508191-23-9	508191-24-0	508191-25-1	508191-26-2	508191-28-4
	508191-29-5	508191-30-8	508191-31-9	508191-33-1	508191-34-2
	508191-35-3	508191-36-4	508191-38-6	508191-40-0	

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(storage-stable water-thinned ink-jet inks with clear hue and excellent fastnesses to light and moisture)

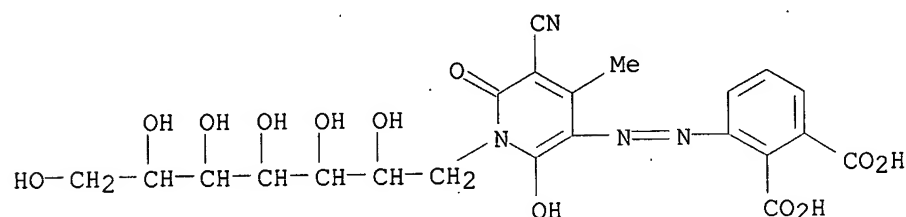
IT 508190-92-9 508191-22-8

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(storage-stable water-thinned ink-jet inks with clear hue and excellent fastnesses to light and moisture)

RN 508190-92-9 HCAPLUS

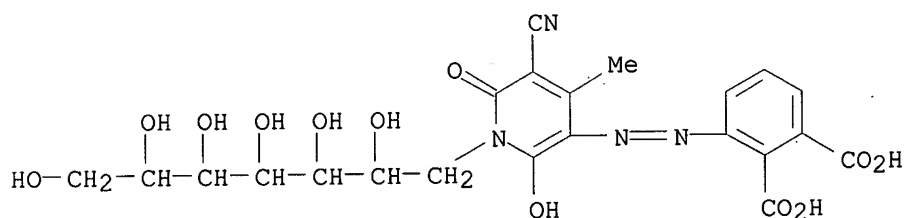
CN Heptitol, 1-deoxy-1-[3-cyano-5-[(2,3-dicarboxyphenyl)azo]-6-hydroxy-4-methyl-2-oxo-1(2H)-pyridinyl]-, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

RN 508191-22-8 HCAPLUS

CN Heptitol, 1-deoxy-1-[3-cyano-5-[(2,3-dicarboxyphenyl)azo]-6-hydroxy-4-methyl-2-oxo-1(2H)-pyridinyl]-, diammonium salt (9CI) (CA INDEX NAME)



● 2 NH3

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1982:546258 HCAPLUS

DOCUMENT NUMBER: 97:146258

TITLE: Water-thinned inks

PATENT ASSIGNEE(S): Pentel Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

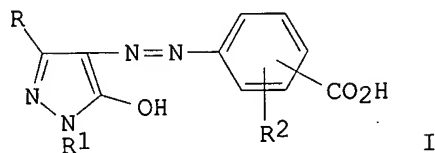
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 57076070 A2 19820512 JP 1980-153281 19801030  
 JP 63066869 B4 19881222 JP 1980-153281 19801030  
 PRIORITY APPLN. INFO.:  
 GI

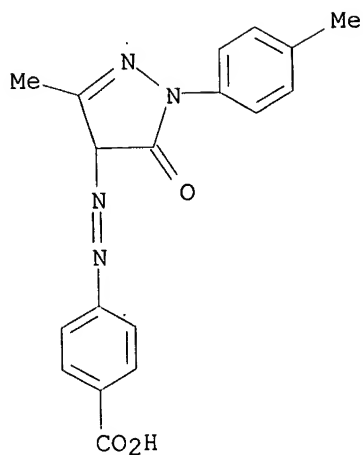


AB Water-thinned writing inks giving water-resistant marks contain sugar esters of I (R = alkyl; R1 = substituted or unsubstituted aryl; R2 = H, halogen, OH, alkyl) and optionally other oil-sol. dye and water-miscible org. solvent (dielec. const. >8, b.p. 80-300.degree.). For example, a typical yellow writing ink was prepd. from I (R = Me, R1 = Ph, R2 = H; p-CO2H) fructose ester (II) [83203-15-0] 5.0, tetrahydrofurfuryl alc. (dielec. const. 13.61, b.p. 178.degree.) 25.0, sulfolane (dielec. const. 43.3, b.p. 285.degree.) 5.0, water 64.5, and Na pentachlorophenolate 0.5 part. A control prepd. similarly using C.I. Solvent Yellow 83 in place of II gave writing ink with inferior water resistance.

IC C09D011-00  
 ICA C09B029-52; C09D011-16  
 CC 42-2 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 41  
 ST pyrazolylazobenzoate sugar **dye** ink; waterborne ink **dye**  
 ; writing ink water resistance; azo **dye** sugar ester ink  
 IT **Dyes**, azo  
 ((hydroxymethylphenylpyrazolyl)azo]benzoic acid sugar esters, for water-thinned inks)  
 IT Inks  
 (writing, water-thinned, **dyes** for,  
 [(hydroxymethylphenylpyrazolyl)azo]benzoic acid sugar esters as)  
 IT 83203-15-0 83203-17-2 83203-18-3  
 RL: USES (Uses)  
 (**dyes**, for water-thinned writing inks)  
 IT 83203-17-2  
 RL: USES (Uses)  
 (**dyes**, for water-thinned writing inks)  
 RN 83203-17-2 HCAPLUS  
 CN D-Glucitol, 4-[[4,5-dihydro-3-methyl-1-(4-methylphenyl)-5-oxo-1H-pyrazol-4-yl]azo]benzoate (9CI) (CA INDEX NAME)

CM 1

CRN 265125-94-8  
 CMF C18 H16 N4 O3

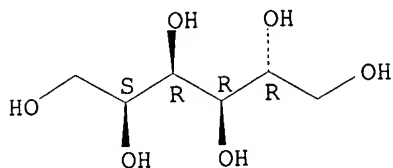


CM 2

CRN 50-70-4

CMF C6 H14 O6

Absolute stereochemistry.



L15 ANSWER 1 OF 19 HCAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 2003:194676 HCAPLUS  
 DOCUMENT NUMBER: 138:222942  
 TITLE: Crayon for **dyeing** textiles and their manufacture  
 INVENTOR(S): Tokunaga, Kenichi  
 PATENT ASSIGNEE(S): Sano K. K., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003073607	A2	20030312	JP 2001-262010	20010830
			JP 2001-262010	20010830

PRIORITY APPLN. INFO.:  
 AB Title crayons are solidified tacky materials having a viscosity of 70,000-300,000 cP and consisting of 70-99:1-30 emulsified waxes and water-sol. dyes. Mixing 85 parts 50% paraffin-contg. emulsified paraffin



(prepd. from paraffin, hot water, Noigen ET140E and Sorgen 50) and 15 parts C.I. direct red 243 gave a material with viscosity of 105 cP, which was molded into a stick and dried at .ltoreq.40.degree. to form a crayon. A cotton shirt was drawn with the crayon and steamed at 100.degree. to form a shirt with red drawing; the excess paraffin and dye could be easily removed after laundry.

IC ICM C09D013-00  
ICS D06P001-46; D06P001-52; D06P005-00  
CC 40-6 (Textiles and Fibers)  
ST emulsified wax water sol **dye** blend crayon textile **dyeing**  
IT Fats and Glyceridic oils, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(Japan wax; emulsified wax and water-sol. **dye** blend crayons for textile **dyeing**)  
IT Textiles  
(cotton; emulsified wax and water-sol. **dye** blend crayons for textile **dyeing**)  
IT Coloring materials  
(crayons; emulsified wax and water-sol. **dye** blend crayons for textile **dyeing**)  
IT Carnauba wax  
Paraffin waxes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(emulsified wax and water-sol. **dye** blend crayons for textile **dyeing**)  
IT Acrylic fibers, miscellaneous  
Polyester fibers, miscellaneous  
RL: MSC (Miscellaneous)  
(fabrics; emulsified wax and water-sol. **dye** blend crayons for textile **dyeing**)  
IT **Dyeing**  
(of textiles; emulsified wax and water-sol. **dye** blend crayons for textile **dyeing**)  
IT **Dyes**  
(water-sol.; emulsified wax and water-sol. **dye** blend crayons for textile **dyeing**)  
IT 12217-48-0, C.I. Basic red 14 59763-30-3, C.I. Disperse red 146  
61931-18-8, C.I. Acid red 274 71902-16-4, C.I. **Reactive** red 147  
86543-85-3, C.I. Direct red 243  
RL: TEM (Technical or engineered material use); USES (Uses)  
(emulsified wax and water-sol. **dye** blend crayons for textile **dyeing**)  
IT 1338-41-6, Sorgen 50 9002-92-0, Noigen ET140E  
RL: TEM (Technical or engineered material use); USES (Uses)  
(emulsifier; emulsified wax and water-sol. **dye** blend crayons for textile **dyeing**)  
IT 1338-41-6, Sorgen 50  
RL: TEM (Technical or engineered material use); USES (Uses)  
(emulsifier; emulsified wax and water-sol. **dye** blend crayons for textile **dyeing**)  
RN 1338-41-6 HCAPLUS  
CN Sorbitan, monoctadecanoate (9CI) (CA INDEX NAME)

CM 1

CRN 57-11-4

CMF C18 H36 O2

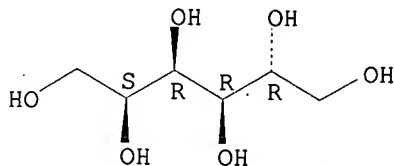
HO<sub>2</sub>C- (CH<sub>2</sub>)<sub>16</sub>-Me

CM 2

CRN 50-70-4

CMF C6 H14 O6

Absolute stereochemistry.



L15 ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:145106 HCAPLUS

DOCUMENT NUMBER: 134:194522

TITLE: Water-, energy-, and time-efficient reactive rapid dyeing system

INVENTOR(S): Herrera, Farid Akram Atala

PATENT ASSIGNEE(S): Atala, Farid A., Peru

SOURCE: U.S., 12 pp.  
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

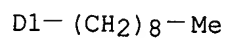
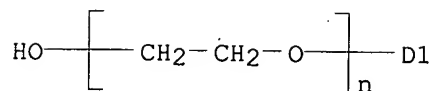
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6193764	B1	20010227	US 1999-295294	19990420
PRIORITY APPLN. INFO.:			US 1999-295294	19990420

AB The title process comprises: (a) scouring the textile material in a scouring bath (having a pH of 8-11) which comprises a scour assistant that is stable to high alkali; and a stable buffered alk. material that permits proper pH to the scouring bath, (b) dropping the scouring bath and without rinsing adding first acetic acid and then a dye assist system comprising sodium meta nitrobenzene sulfonate and sodium polyacrylate; (c) adding a dyestuff formula contg. at least one fiber reactive dyestuff; (d) adding 5-200 g of electrolyte per L of dye bath; (e) adding after the required dyeing temp. of the dyestuffs has been reached, a stable buffered alk. material to said dye bath that permits proper fixation of dyestuff, the dye bath having a pH of from about 8 to about 12.5; (f) subjecting the material to the dye bath; and (g) thereafter cold water rinsing, after-scouring with acetic acid and an after-scouring agent at 80-105.degree. for 5-20 min, optionally hot water rinsing, and finally cold water rinsing the material, whereby from the scouring through the after-scouring's final rinse of said cellulosic contg. textile material up to six water baths are used and the elapsed time is less than five hours. Cotton textiles were dyed using the process.

IC ICM D06P003-66  
ICS D06P001-38; D06P001-382; D06P001-384; D06L003-02

NCL 008543000

CC 40-6 (Textiles and Fibers)  
 ST rapid **dyeing** process textile  
 IT Textiles  
     (cotton; water-, energy-, and time-efficient reactive rapid **dyeing** system)  
 IT Wet scrubbing  
     (scouring; water-, energy-, and time-efficient reactive rapid **dyeing** system)  
 IT **Dyeing**  
     Textiles  
     (water-, energy-, and time-efficient reactive rapid **dyeing** system)  
 IT 2580-78-1, Remazol Brilliant Blue R special  
     RL: TEM (Technical or engineered material use); USES (Uses)  
     (Remazol Brilliant Blue R Special; water-, energy-, and time-efficient reactive rapid **dyeing** system)  
 IT 17095-24-8, Synozol Black B 150  
     RL: TEM (Technical or engineered material use); USES (Uses)  
     (Synozol Black B 150; water-, energy-, and time-efficient reactive rapid **dyeing** system)  
 IT 93050-80-7, Synozol Golden Yellow HF 2GR  
     RL: TEM (Technical or engineered material use); USES (Uses)  
     (Synozol Golden Yellow HF 2GR; water-, energy-, and time-efficient reactive rapid **dyeing** system)  
 IT 127-68-4, Sodium m-nitrobenzene sulfonate 9003-04-7, Sodium polyacrylate  
     RL: NUU (Other use, unclassified); USES (Uses)  
     (dye assist; water-, energy-, and time-efficient reactive rapid **dyeing** system)  
 IT 64-19-7, Acetic acid, uses 7722-84-1, Hydrogen Peroxide, uses 327622-82-2, Texiube SN 327623-55-2, Alkatex F 327623-73-4, Foamaster 340 327994-40-1, Texdet SS 327994-41-2, Antydrol A  
     RL: NUU (Other use, unclassified); USES (Uses)  
     (water-, energy-, and time-efficient reactive rapid **dyeing** system)  
 IT 12236-86-1, Remazol Turquoise RP 51357-74-5, Procion Green HE 4BD 61951-82-4, Procion Red HE 3B 61951-85-7, Procion Yellow HE 4R 85496-37-3, Cibacron Red FB 90597-78-7, Remazol Golden Yellow 3R 98114-32-0, Remazol Brilliant Red F3B 107028-81-9, Cibacron Blue FG-FN 129898-77-7, Remazol Brilliant Yellow 4GL 327994-20-7, Remazol Black BB 327994-34-3, Synozol Red HF 6BN 327994-39-8, Synozol Blue SHF-BRN  
     RL: TEM (Technical or engineered material use); USES (Uses)  
     (water-, energy-, and time-efficient reactive rapid **dyeing** system)  
 IT 327994-40-1, Texdet SS  
     RL: NUU (Other use, unclassified); USES (Uses)  
     (water-, energy-, and time-efficient reactive rapid **dyeing** system)  
 RN 327994-40-1 HCAPLUS  
 CN Sorbitan, mono-(9Z)-9-octadecenoate, mixt. with .alpha.-(nonylphenyl)-.omega.-hydroxypoly(oxy-1,2-ethanediyl), sodium 2-propenoate homopolymer and sorbitan mono-(9Z)-9-octadecenoate poly(oxy-1,2-ethanediyl) derivs. (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 9016-45-9  
 CMF (C2 H4 O)n C15 H24 O  
 CCI IDS, PMS



CM 2

CRN 9005-65-6  
CMF Unspecified  
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 3

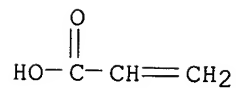
CRN 9003-04-7  
CMF (C3 H4 O2)x . x Na

CM 4

CRN 9003-01-4  
CMF (C3 H4 O2)x  
CCI PMS

CM 5

CRN 79-10-7  
CMF C3 H4 O2



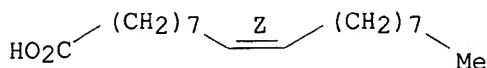
CM 6

CRN 1338-43-8  
CMF C24 H44 O6  
CCI IDS

CM 7

CRN 112-80-1  
CMF C18 H34 O2

Double bond geometry as shown.

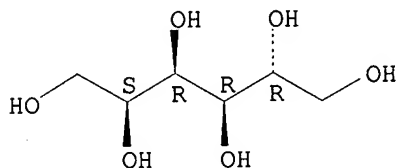


CM 8

CRN 50-70-4

CMF C6 H14 O6

Absolute stereochemistry.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 3 OF 19 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:128394 HCAPLUS

DOCUMENT NUMBER: 134:179871

TITLE: Coating materials for sewn products containing adhesives and workability improvers for imparting various functional properties to the sewn products and manufacture of coating materials therefor and coating sewn products with coatings therefrom

INVENTOR(S): Sadanari, Shigeyuki; Kimura, Masanao

PATENT ASSIGNEE(S): Yuken Chemical K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001049581	A2	20010220	JP 1999-222277	19990805
PRIORITY APPLN. INFO.:			JP 1999-222277	19990805

AB The coatings essentially contain mixts. (A) comprising adhesives, viscosity adjustors, workability improvers, and color adjusting agents, or the coating materials comprise (A) mixts. contg. softening agents or A mixts. contg. dye discharging agents or A mixts. contg. color developing agents or A mixts. contg. water repellents or A mixts. contg. metals or vapor-deposited metal-coated substances or A mixts. contg. ceramics. Coated sewn products are prepd. by coating sewn products with A mixts. by the roller coating method, spray coating method, or printing method, drying the coating, and hot pressing the coating. Aq. aliph. polyester-polyurethane dispersion 40, di-Me polysiloxane 5, monoethylene glycol 5, monoethanolamine 4, alkyl ether-type nonionic surfactant 2, carboic acid 0.5, waterborne pigment 4, isocyanate crosslinking agent 4, and H2O 39.5 parts were mixed to give a coating compn. A jean was coated with the coating compn., dried, and hot pressed to give a jean exhibiting

leather-like surface and showing good smoothness and luster.

IC ICM D06M015-564  
ICS C09D007-12; C09D201-00

CC 40-5 (Textiles and Fibers)

IT **Dyes**  
(acid, color adjustors; coating materials for sewn products contg. adhesives and workability improvers for imparting various functional properties to the sewn products and manuf. of coating materials therefor)

IT **Polyelectrolytes**  
(anionic, **dye** discharging agents; coating materials for sewn products contg. adhesives and workability improvers for imparting various functional properties to the sewn products and manuf. of coating materials therefor)

IT **Dyes**  
(cationic, color adjustors; coating materials for sewn products contg. adhesives and workability improvers for imparting various functional properties to the sewn products and manuf. of coating materials therefor)

IT **Disperse dyes**  
Pigments, nonbiological  
**Reactive dyes**  
(color adjustors; coating materials for sewn products contg. adhesives and workability improvers for imparting various functional properties to the sewn products and manuf. of coating materials therefor)

IT **Dyes**  
(color developers; coating materials for sewn products contg. adhesives and workability improvers for imparting various functional properties to the sewn products and manuf. of coating materials therefor)

IT **Dyes**  
(vat, color adjustors; coating materials for sewn products contg. adhesives and workability improvers for imparting various functional properties to the sewn products and manuf. of coating materials therefor)

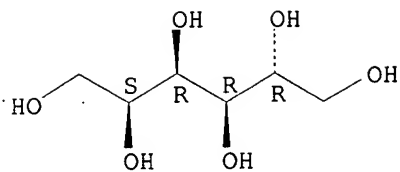
IT 7772-98-7, Sodium hyposulfite 7772-99-8, Stannous chloride, uses 7775-14-6, Sodium hyposulfite  
RL: MOA (Modifier or additive use); USES (Uses)  
(**dye** discharging agent; coating materials for sewn products contg. adhesives and workability improvers for imparting various functional properties to the sewn products and manuf. of coating materials therefor)

IT 50-70-4, Sorbitol, uses 57-13-6, Urea, uses 107-21-1, Monoethylene glycol, uses 111-46-6, Diethylene glycol, uses 112-27-6, Triethylene glycol 25322-68-3, Polyethylene glycol  
RL: MOA (Modifier or additive use); USES (Uses)  
(workability improver; coating materials for sewn products contg. adhesives and workability improvers for imparting various functional properties to the sewn products and manuf. of coating materials therefor)

IT 50-70-4, Sorbitol, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(workability improver; coating materials for sewn products contg. adhesives and workability improvers for imparting various functional properties to the sewn products and manuf. of coating materials therefor)

RN 50-70-4 HCAPLUS  
CN D-Glucitol (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L15 ANSWER 4 OF 19 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:791943 HCAPLUS

DOCUMENT NUMBER: 134:131130

TITLE: Alkoxide-catalyzed hydrolyses of a chlorotriazine in alcohol-water mixtures. A new indirect probe for hydroxide-catalyzed hydrolysis

AUTHOR(S): Bentley, T. William; Morris, Paul J.; Taylor, John A.

CORPORATE SOURCE: Department of Chemistry, University of Wales Swansea, Swansea, SA2 8PP, UK

SOURCE: Perkin 2 (2000), (11), 2171-2176

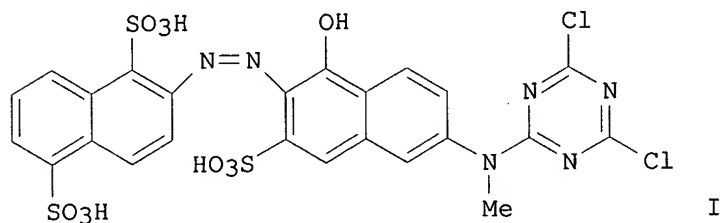
CODEN: PRKTFO; ISSN: 1470-1820

PUBLISHER: Royal Society of Chemistry

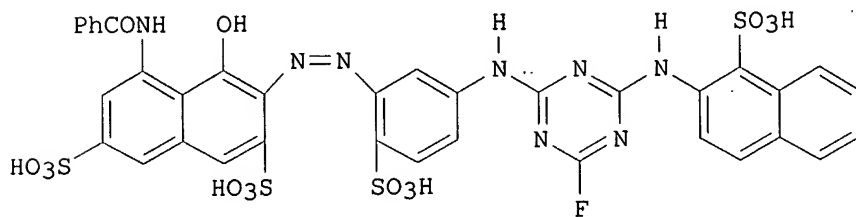
DOCUMENT TYPE: Journal

LANGUAGE: English

GI



I



II

AB Pseudo-first order rate consts. (kobs) and product ratios are reported for competing hydrolysis and alcoholysis of the reactive dichlorotriazine dye (I) in water contg. small amts. (usually <0.05 M) of added alcs. (methanol, propan-1-ol, and four polyols: .alpha.- or .beta.- methylglucopyranoside, mannitol or sorbitol) at pH 11.2. Addnl. data are reported in the presence of ethane-1,2-diol, prop-2-yn-1-ol and 2,2,2-trifluoroethanol. Dissection of kobs for solvolysis of the dye (DX) into the sep. contributions from hydrolysis (kDOH) and alcoholysis (kDOR)

shows that kDOH increases in polyol-water mixts. for I, but not for the monofluorotriazine (II), and kDOH also increases for I in aq. trifluoroethanol. The results are consistent with alkoxide-catalyzed hydrolysis for I; but with an uncatalyzed or weakly-catalyzed hydrolysis for II, and provide indirect support for the possibility of a third order process in which hydroxide could act as a base catalyst. Addnl. kinetic data for I in methanol-water mixts., contg. both sodium carbonate and tetraalkylammonium salts, show rate enhancements particularly when the amt. of sodium carbonate is low.

CC 22-4 (Physical Organic Chemistry)

Section cross-reference(s): 41

ST dichlorotriazine **dye** hydrolysis alcoholysis kinetics alkoxide catalyst Bronsted LFER; solvolysis kinetics dichlorotriazine **dye**

IT Isotope effect

(deuterium; kinetics of competing hydrolysis and alcoholysis of **reactive** dichlorotriazine **dye** in water contg. small amts. of added alcs.)

IT Alcoholysis

Bronsted LFER

**Dyes**

Hydrolysis

Salt effect

Solvolysis

Solvolysis kinetics

(kinetics of competing hydrolysis and alcoholysis of **reactive** dichlorotriazine **dye** in water contg. small amts. of added alcs.)

IT Metal alkoxides

Quaternary ammonium compounds, uses

RL: CAT (Catalyst use); USES (Uses)

(kinetics of competing hydrolysis and alcoholysis of **reactive** dichlorotriazine **dye** in water contg. small amts. of added alcs.)

IT Alcohols, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(kinetics of competing hydrolysis and alcoholysis of **reactive** dichlorotriazine **dye** in water contg. small amts. of added alcs.)

IT Alcohols, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(polyhydric; kinetics of competing hydrolysis and alcoholysis of **reactive** dichlorotriazine **dye** in water contg. small amts. of added alcs.)

IT 7782-39-0, Deuterium, properties

RL: PRP (Properties)

(isotope effect; kinetics of competing hydrolysis and alcoholysis of **reactive** dichlorotriazine **dye** in water contg. small amts. of added alcs.)

IT 71-91-0, Tetraethylammonium bromide 1643-19-2, Tetrabutylammonium bromide

RL: CAT (Catalyst use); USES (Uses)

(kinetics of competing hydrolysis and alcoholysis of **reactive** dichlorotriazine **dye** in water contg. small amts. of added alcs.)

IT 73816-75-8 94246-08-9

RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)

(kinetics of competing hydrolysis and alcoholysis of **reactive** dichlorotriazine **dye** in water contg. small amts. of added alcs.)



IT 50-70-4, D-Sorbitol, reactions 67-56-1, Methanol, reactions  
69-65-8, D-Mannitol 75-89-8, 2,2,2-Trifluoroethanol 97-30-3,  
.alpha.-MethylGlucopyranoside 107-19-7, 2-Propyn-1-ol 107-21-1,  
1,2-Ethanediol, reactions 709-50-2

RL: RCT (Reactant); RACT (Reactant or reagent)  
(kinetics of competing hydrolysis and alcoholysis of **reactive**  
dichlorotriazine **dye** in water contg. small amts. of added  
alcs.)

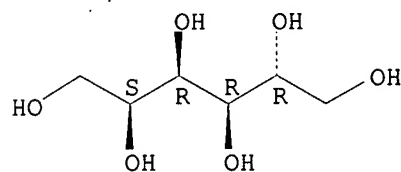
IT 50-70-4, D-Sorbitol, reactions 69-65-8, D-Mannitol

RL: RCT (Reactant); RACT (Reactant or reagent)  
(kinetics of competing hydrolysis and alcoholysis of **reactive**  
dichlorotriazine **dye** in water contg. small amts. of added  
alcs.)

RN 50-70-4 HCAPLUS

CN D-Glucitol (9CI) (CA INDEX NAME)

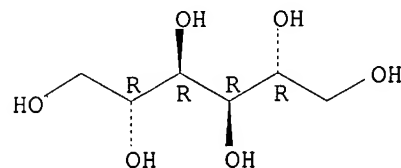
Absolute stereochemistry.



RN 69-65-8 HCAPLUS

CN D-Mannitol (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1995:888983 HCAPLUS

DOCUMENT NUMBER: 123:289410

TITLE: Homogeneous models for the chemical selectivity of  
**reactive dyes** on cotton -  
development of procedures and choice of model

AUTHOR(S): Bentley, T. William; Ratcliff, Joanne; Renfrew, A  
Hunter M.; Taylor, John A.

CORPORATE SOURCE: Dep. Chem., Univ. Coll. Swansea, Swansea, SA2 8PP, UK  
SOURCE: Journal of the Society of Dyers and Colourists (1995),  
111(9), 288-93

CODEN: JSDCAA; ISSN: 0037-9859

PUBLISHER: Society of Dyers and Colourists

DOCUMENT TYPE: Journal

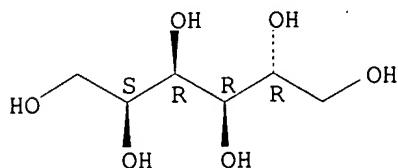
LANGUAGE: English

AB Rates and products of reactions of a dichlorotriazine dye (C.I. Reactive  
Orange 4) with a range of alcs. (methanol, propan-1-ol, propan-2-ol,  
tetrahydropyran-2-methanol, ethane-1,2-diol, .alpha.- and

.beta.-methylglucopyranosides, mannitol, and sorbitol) have been investigated in dil. aq. soln. at pH 11.0 and 25.0.degree. by ion-pair HPLC. The pseudo-first order rate consts. have been sepd. into contributions from the competing hydrolysis and alcoholysis reactions. Addn. of alc. increases the rates of both hydrolysis and alcoholysis reactions. Product selectivity increases from 74 for 0.132 mol/L propan-1-ol to 2400 for 0.132 mol/L mannitol and differs even for stereoisomers. It is concluded that, despite its simplicity, methanol is a suitable model alc. for probing the major factors influencing the chem. selectivity of reactive dyes in homogeneous solns.

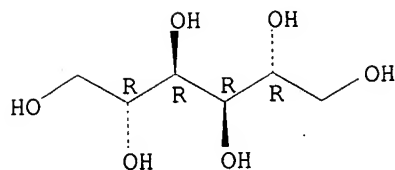
- CC 40-6 (Textiles and Fibers)  
Section cross-reference(s): 41
- ST **reactive dye** alcoholysis kinetics; hydrolysis kinetics  
**reactive dye**; methanolysis kinetics **reactive dye**; model alc **reactive dyeing**
- IT Kinetics of alcoholysis  
Kinetics of hydrolysis  
Kinetics of methanolysis  
(homogeneous models for the chem. selectivity of **reactive dyes** on cotton)
- IT **Dyeing**  
(**reactive**, homogeneous models for the chem. selectivity of **reactive dyes** on cotton)
- IT 50-70-4, D-Sorbitol, properties 67-56-1, Methanol, properties 67-63-0, 2-Propanol, properties 69-65-8, D-Mannitol 71-23-8, 1-Propanol, properties 97-30-3 100-72-1, Tetrahydropyran-2-methanol 107-21-1, Ethylene glycol, properties 709-50-2 70616-90-9, Procion Orange MX-2R  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)  
(homogeneous models for the chem. selectivity of **reactive dyes** on cotton)
- IT 50-70-4, D-Sorbitol, properties 69-65-8, D-Mannitol  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)  
(homogeneous models for the chem. selectivity of **reactive dyes** on cotton)
- RN 50-70-4 HCAPLUS  
CN D-Glucitol (9CI) (CA INDEX NAME)

Absolute stereochemistry.



- RN 69-65-8 HCAPLUS  
CN D-Mannitol (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L15 ANSWER 6 OF 19 HCAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1994:194414 HCAPLUS  
 DOCUMENT NUMBER: 120:194414  
 TITLE: Super-porous polysaccharide gels and their preparation  
 INVENTOR(S): Larsson, Per Olof  
 PATENT ASSIGNEE(S): Pharmacia Lkb Biotechnology AB, Swed.  
 SOURCE: PCT Int. Appl., 25 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9319115	A1	19930930	WO 1993-SE226	19930316
W: AU, CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9337726	A1	19931021	AU 1993-37726	19930316
EP 631597	A1	19950104	EP 1993-906944	19930316
EP 631597	B1	19990609		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 07505415	T2	19950615	JP 1993-516458	19930316
AT 181087	E	19990615	AT 1993-906944	19930316
ES 2136657	T3	19991201	ES 1993-906944	19930316
US 5723601	A	19980303	US 1994-302839	19940916
PRIORITY APPLN. INFO.:			SE 1992-827	A 19920318
			WO 1993-SE226	A 19930316

AB The title gels can be processed to shapes comprising spheres, membranes, etc. and useful esp. for chromatog. sepn., are prepd. by forming a water-based soln. of a polysaccharide, adding a water-immiscible org. phase to the soln. to give emulsion which when allowed to solidify, just before or during gelling, forming networks of 2 continuous phases, an aq. polysaccharide phase and a flow-pore-forming org. phase, resulting in a material with 2 types of pores, i.e. small diam. diffusion pores and larger diam. flow through pores. Thus, a dissoln. of 6 g agarose in 94 mL water was combined with a 2% dispersion of Tween 80 in cyclohexane at 60.degree. in wt. ratio 2/1, and stirred 2 min at 2000 rpm to give a white viscous emulsion which provided superporous particles..

IC ICM C08J003-16  
 ICS C08J009-28; C08L005-00

CC 44-5 (Industrial Carbohydrates)  
 Section cross-reference(s): 43

IT **Dyes, reactive**  
 (activated polysaccharide-based superporous particles modified with)

IT 9005-64-5, Tween 20 9005-65-6, Tween 80 26266-58-0, Span 85  
 RL: USES (Uses)  
 (detergent, for formation of polysaccharide gels in manuf. of superporous products)

IT 26266-58-0, Span 85

RL: USES (Uses)

(detergent, for formation of polysaccharide gels in manuf. of superporous products)

RN 26266-58-0 HCAPLUS

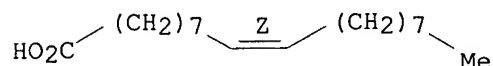
CN Sorbitan, tri-(9Z)-9-octadecenoate (9CI) (CA INDEX NAME)

CM 1

CRN 112-80-1

CMF C18 H34 O2

Double bond geometry as shown.

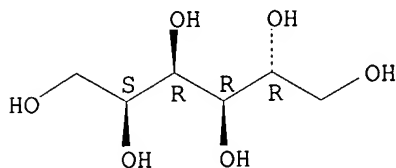


CM 2

CRN 50-70-4

CMF C6 H14 O6

Absolute stereochemistry.



L15 ANSWER 7 OF 19 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1993:40796 HCAPLUS

DOCUMENT NUMBER: 118:40796

TITLE: The kinetics of the hydrolysis of some mono- and bifunctional **reactive dyes**

AUTHOR(S): Shawki, Ahmed; Nassar, Ahmed M. G.; Kharaba, Mohamed A.

CORPORATE SOURCE: Fac. Sci., Alexandria Univ., Alexandria, Egypt

SOURCE: Pakistan Journal of Scientific and Industrial Research (1992), 35(1-2), 27-9

CODEN: PSIRAA; ISSN: 0030-9885

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The kinetics of the nucleophilic reaction of 3 mono- and 2 bis(chlorotriazinyl) reactive azo dyes with water were studied at 70-90.degree. and pH 9.22-11.14. The rates of the reaction with mannitol (a cellulose model) were also detd.

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 40

ST azo **reactive dye** hydrolysis kinetics; mannitol reaction kinetics chlorotriazine **dye**

IT Kinetics of hydrolysis

(of chlorotriazine group-contg. azo **dyes**)

IT Kinetics of alcoholysis

(of chlorotriazine group-contg. azo **dyes**, with mannitol)

IT **Dyes, reactive**  
(azo, reaction of, with water and mannitol, kinetics of)

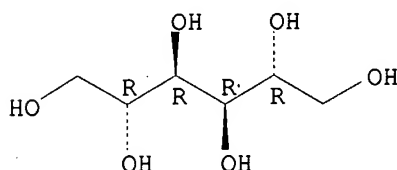
IT **69-65-8, Mannitol**  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with chlorotriazine group-contg. azo **dyes**, kinetics of)

IT **69-65-8, Mannitol**  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with chlorotriazine group-contg. azo **dyes**, kinetics of)

RN 69-65-8 HCAPLUS

CN D-Mannitol (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L15 ANSWER 8 OF 19 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1989:576435 HCAPLUS

DOCUMENT NUMBER: 111:176435

TITLE: **Dyes** containing polyhydroxyl groups for ink-jet printing inks

INVENTOR(S): Pawlowski, Norman E.; Bares, Steven J.; Johnson, Loren E.; Hindagolla, Suraj L.

PATENT ASSIGNEE(S): Hewlett-Packard Co., USA

SOURCE: U.S., 4 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4836851	A	19890606	US 1988-155175	19880211
CA 1293971	A1	19920107	CA 1988-580452	19881018
EP 328375	A2	19890816	EP 1989-301227	19890209
EP 328375	A3	19890927		
EP 328375	B1	19940202		
R: DE, FR, GB, IT				
JP 01247469	A2	19891003	JP 1989-32546	19890210
JP 2765912	B2	19980618		

PRIORITY APPLN. INFO.: US 1988-155175 19880211

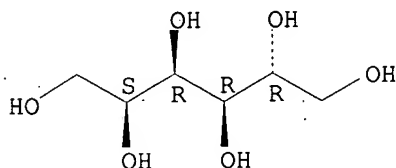
AB Dyes with good soly. in water and strong affinity for paper in the title use are manufd. by forming hydroxy group-contg. ethers of dyes with (cyclo)alkane polyols or (poly)saccharides. Thus, reaction of 18.2 g sorbitol with 12 g C.I. Reactive Black 1 in 130 mL water contg. 3 g LiOH for 1 h at 90.degree. and pH 9 (HOAc) gave a dye with good soly. in water, which provided a waterborne ink with good water and smear resistance on paper.

IC ICM C09D011-00

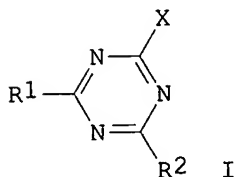
NCL 106022000

CC 42-12 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 41  
 ST jet printing ink polyhydroxy **dye**; **reactive dye**  
 sorbitol ether ink; waterborne ink polyhydroxy **dye**; water  
 resistance ink polyhydroxy **dye**; smear resistance ink polyhydroxy  
**dye**  
 IT **Dyes**  
 (polyhydroxy group-contg., for jet-printing inks)  
 IT Inks  
 (jet-printing, **dyes** for, polyhydroxy group-contg.)  
 IT 50-70-4DP, Sorbitol, reaction products with C.I. **Reactive**  
 Black 1 12236-77-0DP, C.I. **Reactive** Black 1, reaction products  
 with sorbitol  
 RL: PREP (Preparation)  
 (manuf. of, for **dyes** for jet-printing inks)  
 IT 50-70-4DP, Sorbitol, reaction products with C.I. **Reactive**  
 Black 1  
 RL: PREP (Preparation)  
 (manuf. of, for **dyes** for jet-printing inks)  
 RN 50-70-4 HCAPLUS  
 CN D-Glucitol (9CI) (CA INDEX NAME)

Absolute stereochemistry.

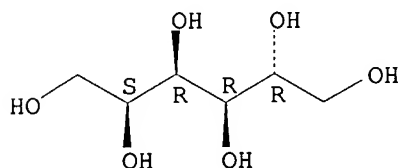


L15 ANSWER 9 OF 19 HCAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1989:576170 HCAPLUS  
 DOCUMENT NUMBER: 111:176170  
 TITLE: The kinetics of the hydrolysis and alcoholysis of some  
 model monofluorotriazinyl **reactive**  
**dyes**  
 AUTHOR(S): Li, Xiaotu; Zhu, Zhenghua; Chen, Kongchang  
 CORPORATE SOURCE: Inst. Fine Chem., East China Univ. Chem. Technol.,  
 Shanghai, Peop. Rep. China  
 SOURCE: Dyes and Pigments (1989), 11(2), 123-36  
 CODEN: DYPIDX; ISSN: 0143-7208  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



- AB Nine model halotriazinyl reactive dyes (I; R1 = Me2N, MePhN, MeO, H2N, Me-o-C6H4NH, MeNH; R2 = Cl, MePhN; X = Cl, F) were synthesized. Fluoride- and chloride-ion-selective electrode methods were used to det. the rate const. of hydrolysis and alcoholysis both in alk. soln. and water-sorbitol. The rate consts. of the dichloro-, monochloro-, and monofluorotriazinyl model dyes were compared and relations between the chem. reactivity and the fixation rate were discussed. NMR was used to follow the reaction path of hydrolysis and possible intermediates formed during the hydrolysis were discussed. The SCF-MO method was used to calc. the superdelocalizability on the reaction site, showing a correlation of natural logarithm of the rate const. with the superdelocalizability.
- CC 41-5 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
- ST fluorotriazinyl **dye** hydrolysis kinetics; triazine **reactive dye** solvolysis
- IT **Dyes, reactive**  
(halotriazine model compds. for, kinetics of hydrolysis and solvolysis of)
- IT Kinetics of solvolysis  
(of halotriazine model compds. for **reactive dyes**, in aq. sorbitol)
- IT Molecular orbital  
(SCF, in calcn. of superdelocalizability of halotriazinyl compds. as models for **reactive dyes**)
- IT Kinetics of hydrolysis  
(base, of halotriazine model compds. for **reactive dyes**)
- IT 50-70-4, Sorbitol, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(triazinyl model **dye** solvolysis by aq., kinetics of)
- IT 50-70-4, Sorbitol, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(triazinyl model **dye** solvolysis by aq., kinetics of)
- RN 50-70-4 HCAPLUS
- CN D-Glucitol (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L15 ANSWER 10 OF 19 HCAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1989:97105 HCAPLUS  
 DOCUMENT NUMBER: 110:97105  
 TITLE: Composition for washing fibers after **dyeing**  
 with **reactive dyes** and its  
 preparation and use  
 INVENTOR(S): Abel, Heinz; Berendt, Hans Ulrich  
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.  
 SOURCE: Eur. Pat. Appl., 11 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 287514	A1	19881019	EP 1988-810227	19880406
R: CH, DE, FR, GB, IT, LI				
US 4902439	A	19900220	US 1988-181797	19880415
PRIORITY APPLN. INFO.:			CH 1987-1494	19870415
OTHER SOURCE(S): MARPAT 110:97105				

AB The title compn. contains an alkali aluminosilicate, an alc. contg. 3-6 OH, and, optionally, anionic and nonionic surfactants. The compn. is prepd. by milling with glass beads to give a microdispersion. The dyed fibers are washed with the compn. at 60-100.degree. to remove unbound dye mols. A compn. contg. Na aluminosilicate 30.0, the ammonium salt of the sulfate ester of ethoxylated (2 mol) nonylphenol 0.15, ethoxylated (10 mol) p-nonylphenol 0.7, sorbitol 45.5, and water 23.65% was milled with glass beads to give particle size 1.3 .mu.m, sepd. from the beads, and used (4 mL) in 1 L hard water at reflux for the washing of cotton yarn after dyeing with a reactive dye, giving yarn having good dye fastness.

IC ICM C11D003-12  
 ICS C11D003-20; D06P005-02; D06P005-04; D06P005-10

CC 40-6 (Textiles and Fibers)

ST aluminosilicate washing **dyeing** textile; alc polyhydric washing **dyeing** textile; polyol washing **dyeing** textile; sorbitol washing **dyeing** textile; **dyeing** textile washing fastness

IT Alcohols, uses and miscellaneous  
 RL: USES (Uses)  
 (polyhydric, washing compn. contg., for textiles in **dyeing** with **reactive dyes**)

IT **Dyeing**  
 (reactive, washing compns. for fastness in)

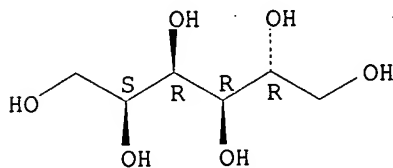
IT 50-70-4, Sorbitol, uses and miscellaneous 56-81-5, Glycerol, uses and miscellaneous 69-65-8, Mannitol 77-99-6, Trimethylolpropane 106-69-4, 1,2,6-Hexanetriol 115-77-5, Pentaerythritol, uses and miscellaneous 149-32-6, Erythritol 1344-00-9, Aluminum sodium silicate 3068-00-6, 1,2,4-Butanetriol 98756-99-1  
 RL: USES (Uses)  
 (washing compn. contg., for textiles in **dyeing** with **reactive dyes**)

IT 50-70-4, Sorbitol, uses and miscellaneous 69-65-8, Mannitol  
 RL: USES (Uses)  
 (washing compn. contg., for textiles in **dyeing** with **reactive dyes**)

RN 50-70-4 HCAPLUS

CN D-Glucitol (9CI) (CA INDEX NAME)

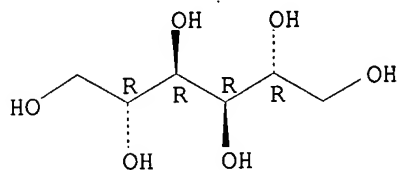
Absolute stereochemistry.





RN 69-65-8 HCAPLUS  
 CN D-Mannitol (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L15 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1986:444697 HCAPLUS  
 DOCUMENT NUMBER: 105:44697  
 TITLE: Discharge printing of polyester-cellulose blend fabrics  
 INVENTOR(S): Uchida, Shigeji; Nakamoto, Hisao  
 PATENT ASSIGNEE(S): Nikka Chemical Industry Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61063790	A2	19860401	JP 1984-187520	19840906
PRIORITY APPLN. INFO.:			JP 1984-187520	19840906

AB In discharge printing polyester-cellulose blend fabrics, print sharpness is improved by first treating a fabric with liqs. contg. alkali-dischargeable disperse dyes, reactive dyes, and an org. acid at pH 3-7, then printing the fabric with compns. contg. the reaction product of ethylene oxide (I) with glycerol, pentaerythritol, sorbitan and ethylene glycol, or trimethylolpropane as a dye-discharge aid, and then steaming the fabric. Thus, a 65:35 polyester-cotton blend fabric was dyed with an aq. compn. contg. malic acid 0.3, Foron Blue SE-2R 2, and Sumifix Brilliant Blue R 3%, squeezed to 70% pickup, and dried. The dyed fabric was then screen-printed with a compn. contg. 1.5% Dianix Yellow H 2G-FS, 10% reaction product (II) of 250 parts glycerol with 625 parts I, and 3.0% Cibacron Brilliant Yellow 3 GP and steamed 10 min to give a printed fabric with good print sharpness and high color yield, whereas color yield was poor for a fabric printed with a similar compn. contg. glycerol.

IC ICM D06P005-13  
 ICA D06Q001-00  
 CC 40-6 (Textiles)  
 ST polyester cotton blend discharge printing; **reactive dye** textile printing; disperse **dye** textile printing; glycerol deriv **dye** discharge aid; ethylene oxide deriv discharge aid; print sharpness textile discharge printing  
 IT Polyester fibers, uses and miscellaneous  
 RL: USES (Uses)  
 (cotton blends, discharge printing of, with compns. contg. disperse **dyes**, **reactive dyes** and ethylene oxide-polyhydric alc. reaction products, with improved print sharpness)  
 IT Textile printing  
 (discharge, on polyester-cotton blend fabrics, with compns. contg.

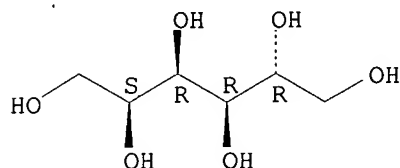
disperse **dyes**, **reactive dyes** and ethylene  
oxide-polyhydric alc. reaction products, with improved print sharpness)  
IT 56-81-5D, reaction products with ethylene oxide 75-21-8D, reaction  
products with polyhydric alcs. 77-99-6D, reaction products with ethylene  
oxide 107-21-1D, reaction products with ethylene oxide and sorbitan  
115-77-5D, reaction products with ethylene oxide **12441-09-7D**,  
reaction products with ethylene oxide and ethylene glycol  
RL: USES (Uses)  
(**dye**-discharge aid, for printing of polyester-cotton blend  
fabrics)  
IT **12441-09-7D**, reaction products with ethylene oxide and ethylene  
glycol  
RL: USES (Uses)  
(**dye**-discharge aid, for printing of polyester-cotton blend  
fabrics)  
RN 12441-09-7 HCAPLUS  
CN Sorbitan (6CI, 9CI) (CA INDEX NAME)

CM 1

CRN 50-70-4

CMF C6 H14 O6

Absolute stereochemistry.



L15 ANSWER 12 OF 19 HCAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 1981:605398 HCAPLUS  
DOCUMENT NUMBER: 95:205398  
TITLE: Kinetic and calorimetric studies of **reactive dye** hydrolysis and alcoholysis reactions  
AUTHOR(S): Sivaraja Lyer, S. R.; Ramaseshan, G.; Chourishi, N. K.  
CORPORATE SOURCE: Dep. Chem. Technol., Univ. Bombay, Bombay, 400019, India  
SOURCE: Journal of the Society of Dyers and Colourists (1981), 97(7), 319-26  
CODEN: JSDCAA; ISSN: 0037-9859  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB The title studies were carried out to det. rate consts. and enthalpy changes for the alcoholysis (KOA and .DELTA.HA, resp.) and hydrolysis (KOH and .DELTA.HH, resp.) at 35.degree. as a function of pH of 6 reactive dyes. The alcoholysis was carried out in homogeneous media. The .DELTA.HH increased with pH, whereas .DELTA.HA decreased with an increase in pH for glucose [50-99-7] and sorbitol [50-70-4] media. For ProH and iso-ProH, the interaction of the dyes with the secondary alc. groups led to a lowering of .DELTA.HA. The presence of buffer decreased the .DELTA.HH. Kinetic and thermodyn. results showed that changes in KOH and .DELTA.HH with pH were influenced by the changes in the solvent environment at different pH values.  
CC 40-1 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)  
ST **reactive dye** alcoholysis kinetics; hydrolysis

reactive dye kinetics; heat reactive  
 dye alcoholysis hydrolysis

IT Dyes, reactive  
 (alcoholysis and hydrolysis reactions of, kinetics and heat of)

IT Heat of alcoholysis  
 Heat of hydrolysis  
 Kinetics of alcoholysis  
 Kinetics of hydrolysis  
 (of reactive dyes, pH in relation to, solvent  
 effect on)

IT Solvent effect  
 (on alcoholysis and hydrolysis of reactive dyes)

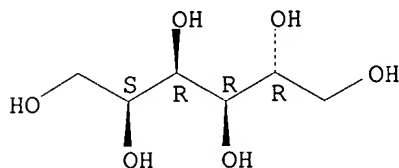
IT 50-70-4, reactions 50-99-7, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (solvolysis by, of reactive dyes, enthalpies and  
 kinetics of)

IT 50-70-4, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (solvolysis by, of reactive dyes, enthalpies and  
 kinetics of)

RN 50-70-4 HCAPLUS

CN D-Glucitol (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L15 ANSWER 13 OF 19 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1981:516944 HCAPLUS

DOCUMENT NUMBER: 95:116944

TITLE: Dyeing of cotton with reactive  
 dyes from water and dimethylformamide-assisted  
 solvent systems

AUTHOR(S): Chavan, R. B.; Datta, C.

CORPORATE SOURCE: Dep. Text. Technol., Indian Inst. Technol., New Delhi,  
 110016, India

SOURCE: Cellulose Chemistry and Technology (1981), 15(2),  
 179-92  
 CODEN: CECTAH; ISSN: 0576-9787

DOCUMENT TYPE: Journal

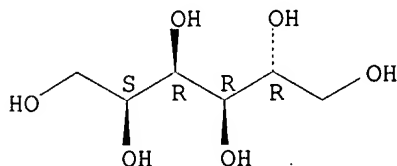
LANGUAGE: English

AB Acetone (I) [67-64-1] or a mixt. of I and trichloroethylene [79-01-6]  
 along with limited amts. of water or DMF [68-12-2] were used to apply  
 mono- and dichlorotriazinyl-type reactive dyes on water- or aq.  
 alkali-swollen cotton. Under suitable dyeing conditions, 100% dyebath  
 exhaustion and dye fixation 84-86% was achieved. Less hydrolyzed dyes  
 were present in the solvent systems than in conventional aq. systems.  
 When the kinetics of dyeing was studied in the absence and presence of the  
 cellulose model compd. sorbitol [50-70-4], the kinetics  
 followed a linear relation during the initial period of reaction for both  
 the aq. and I-water system but deviated from linearity as the reaction  
 continued. The initial linear portion followed pseudo 1st order kinetics.

CC 39-7 (Textiles)

- ST **dyeing cotton reactive dye**; acetone  
**dyeing cotton**; trichloroethylene **dyeing cotton**; DMF  
**dyeing cotton**; water **dyeing cotton**; sorbitol hydrolysis  
**reactive dye**; chlorotriazine **dyeing cotton**
- IT **Dyes, reactive**  
(chlorotriazinyl derivs., hydrolysis of, in presence of sorbitol, as  
model for cellulose)
- IT Kinetics of hydrolysis  
(of chlorotriazinyl azo **reactive dyes** in presence  
and absence of cellulose model compd.)
- IT **Dyeing**  
(of cotton, with Procion **reactive dyes**, in acetone  
or acetone-trichloroethylene mixts. contg. water or DMF)
- IT 68-12-2, uses and miscellaneous  
RL: USES (Uses)  
(cotton textile **dyeing** with Procion **reactive**  
**dyes** in presence of)
- IT 7732-18-5, uses and miscellaneous  
RL: USES (Uses)  
(cotton textile **dyeing** with Procion **reactive**  
**dyes** in solvent systems contg.)
- IT 67-64-1, uses and miscellaneous  
RL: USES (Uses)  
(cotton textile **dyeing** with Procion **reactive**  
**dyes** in water- or dimethylformamide-contg.)
- IT 79-01-6, uses and miscellaneous  
RL: USES (Uses)  
(cotton textile **dyeing** with Procion **reactive**  
**dyes** in water- or dimethylformamide-contg. acetone and)
- IT 50-70-4, uses and miscellaneous  
RL: USES (Uses)  
(hydrolysis of Procion **reactive dyes** in presence  
of, rate of, as model for cellulose)
- IT 50-70-4, uses and miscellaneous  
RL: USES (Uses)  
(hydrolysis of Procion **reactive dyes** in presence  
of, rate of, as model for cellulose)
- RN 50-70-4 HCAPLUS
- CN D-Glucitol (9CI) (CA INDEX NAME)

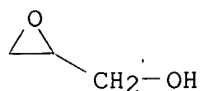
Absolute stereochemistry.



L15 ANSWER 14 OF 19 HCAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 1979:139017 HCAPLUS  
DOCUMENT NUMBER: 90:139017  
TITLE: **Dyeing** of fibers containing active hydrogen  
groups  
INVENTOR(S): Nose, Katsuhiko; Yamane, Noriomi  
PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 53143784	A2	19781214	JP 1977-58107	19770518
PRIORITY APPLN. INFO.:				JP 1977-58107	19770518
AB	Reactive dye-dyed cotton, rayon, and Chinon fabrics, with improved dye absorption, were prepd. by dyeing the fabric with a liquor contg. a reactive dye and a polyepoxy compd. Thus, cotton broadcloth was immersed in a bath contg. 2.0% C.I. Reactive Blue 14 and 1.5% glycerol triglycidyl ether (I) [13236-02-7] to 80% pickup, dried, and heat-treated 3 min at 160.degree. to give a dyed fabric with dye absorption ratio 98.1%, compared with 71.2% for a fabric dyed with a similar compn. without I.				
IC	D06P001-38				
CC	39-7 (Textiles)				
ST	cotton fabric <b>dyeing</b> ; rayon fabric <b>dyeing</b> ; acrylic fabric <b>dyeing</b> ; polyepoxy compd textile <b>dyeing</b> ; <b>reactive dye</b> textile <b>dyeing</b>				
IT	<b>Dyeing</b> (of cotton, rayon, and Chinon fabrics, with <b>reactive dyes</b> , polyepoxy compd. <b>dye</b> fixing agents for)				
IT	Caseins, uses and miscellaneous RL: PREP (Preparation) (acrylonitrile-grafted, fiber, <b>dyeing</b> of, with <b>reactive dyes</b> )				
IT	107-13-1D, polymers with casein RL: USES (Uses) (cloth, fiber, <b>dyeing</b> of, with <b>reactive dyes</b> )				
IT	13236-02-7 17557-23-2 RL: USES (Uses) ( <b>dye</b> fixing agents, for <b>dyeing</b> of cotton fabrics with <b>reactive dyes</b> )				
IT	64055-71-6 RL: USES (Uses) ( <b>dye</b> fixing agents, for <b>dyeing</b> of rayon fabrics with <b>reactive dyes</b> )				
IT	16096-30-3 RL: USES (Uses) ( <b>dye</b> -fixing agents, for <b>dyeing</b> of Chinon fabrics with <b>reactive dyes</b> )				
IT	64055-71-6 RL: USES (Uses) ( <b>dye</b> fixing agents, for <b>dyeing</b> of rayon fabrics with <b>reactive dyes</b> )				
RN	64055-71-6 HCAPLUS				
CN	D-Glucitol, tetrakis-O-(oxiranylmethyl)- (9CI) (CA INDEX NAME)				
CM	1				
CRN	556-52-5				
CMF	C3 H6 O2				

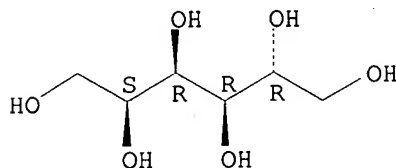


CM 2

CRN 50-70-4

CMF C6 H14 O6

Absolute stereochemistry.



L15 ANSWER 15 OF 19 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1972:155483 HCAPLUS

DOCUMENT NUMBER: 76:155483

TITLE: **Dyeing** of nylon from non-aqueous solutions

INVENTOR(S): Markert, Juergen; Hertig, Jean; Bosshard, Hans H.

PATENT ASSIGNEE(S): Ciba-Geigy A.-G.

SOURCE: Ger. Offen., 22 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2137034	A	19720127	DE 1971-2137034	19710723
PRIORITY APPLN. INFO.:			CH 1970-11296	19700724

AB Nylon 6 or nylon 66 fibers are dyed with acid dyes or other reactive dyes in perchloroethylene [127-18-4] (optionally contg. 2.5% ethylene glycol) contg. a sorbitan fatty acid ester, eliminating the water purification necessary when water is the dyeing medium. Thus, 5 parts nylon 66 fibers are dyed blue during 45 min in a boiling soln. of perchloroethylene 160, sorbitan monolaurate 1, and 1-amino-4-(p-toluidino)-2-sulfoanthraquinone (I) 0.1 part.

IC D06P

CC 39 (Textiles)

ST nylon fiber **dyeing** perchloroethylene

IT Polyamide fibers

RL: PROC (Process) .  
 (dyeing of, with acid or reactive dyes in  
 nonaq. solns. contg. sorbitan fatty acid esters as dispersing agents)

IT **Dyeing**  
 (of polyamide fibers, with acid or reactive dyes in  
 nonaq. solns. contg. sorbitan fatty acid esters as dispersing agents)

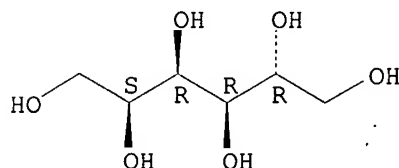
IT Dispersing agents  
 (sorbitan fatty acid esters, for **dyeing** of polyamide fibers  
 in nonaq. solns.)

IT 1338-39-2 1338-41-6  
 RL: USES (Uses)  
 (dispersing agents, for **dyeing** of polyamide fibers with **reactive dyes** in nonaq. solns.)  
 IT 127-18-4  
 RL: USES (Uses)  
 (solvents, for **dyeing** of polyamide fibers with acid or **reactive dyes**)  
 IT 1338-39-2 1338-41-6  
 RL: USES (Uses)  
 (dispersing agents, for **dyeing** of polyamide fibers with **reactive dyes** in nonaq. solns.)  
 RN 1338-39-2 HCAPLUS  
 CN Sorbitan, monododecanoate (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 143-07-7  
 CMF C12 H24 O2

HO<sub>2</sub>C- (CH<sub>2</sub>)<sub>10</sub>-Me

CM 2  
 CRN 50-70-4  
 CMF C6 H14 O6

Absolute stereochemistry.

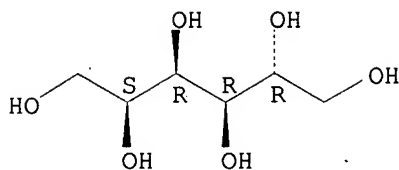


RN 1338-41-6 HCAPLUS  
 CN Sorbitan, monoctadecanoate (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 57-11-4  
 CMF C18 H36 O2

HO<sub>2</sub>C- (CH<sub>2</sub>)<sub>16</sub>-Me

CM 2  
 CRN 50-70-4  
 CMF C6 H14 O6

Absolute stereochemistry.



L15 ANSWER 16 OF 19 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1967:116579 HCAPLUS

DOCUMENT NUMBER: 66:116579

TITLE: Reactions of **reactive dyes** with chlorinated heteroaromatic structures

AUTHOR(S): Rys, Paul

CORPORATE SOURCE: Tech. Hochsch., Zurich, Switz.

SOURCE: Textilveredlung (1967), 2(3), 95-103

CODEN: TXLVAE; ISSN: 0040-5310

DOCUMENT TYPE: Journal

LANGUAGE: German

AB In order to understand the influence of temp., dye structure, salt concn., substantivity, pH, etc., on the fixation of reactive dyes on cellulose (I), the mechanism of the reaction was investigated, using esterifying dyes contg. the chlorotriazine group. D-Sorbitol (II) was chosen as a water-sol. model of I, and the reaction of mono- and dichlorotriazine dyes with II in aq. alk. soln. was studied. The reaction consists of 3 steps: formation of a covalent bond between dye and substrate, hydrolysis of the dye, and hydrolysis of the dye-substrate reaction product. Kinetic measurements show that only in the case of a few dyes does the reaction proceed according to a simple addn.-elimination process. In many cases, prior to the substitution reaction, a deprotonation of the N bridge joining the reactive group to the main part of the dye occurs. The extreme pH dependence of the alk. hydrolysis can also be caused by a prior assocn. equil. Kinetic examn. of the side reactions taking place in a II-H<sub>2</sub>O mixt. indicates that tautomeric equil. can also influence the rate of hydrolysis. Further investigations of the effect of temp. and ion strength on this tautomeric equil. in a homogeneous system are required before the mechanism of the complex heterogeneous fiber-dye reaction can be fully understood.

CC 39 (Textiles)

ST CHLOROTRIAZINE **DYES** SORBITOL; **DYES** CHLOROTRIAZINE SORBITOL; SORBITOL CHLOROTRIAZINE **DYES**; MECHANISM **DYE** FIXATION CELLULOSE; CELLULOSE MECHANISM **DYE** FIXATION

IT **Dyes, reactive**  
(chlorotriazine and other chlorinated aromatic, fixation on cellulose and reaction with D-sorbitol, kinetics and mechanism of)

IT Hydrolysis  
(of chlorotriazine **dyes** and of their reaction products with cellulose)

IT Kinetics, reaction  
(of glucitol-water mixt. side reactions in reaction with chlorotriazine **dyes**)

IT s-Triazine, 2-chloro-, derivs.

RL: USES (Uses)

(**dyes** from, reaction with D-glucitol as model for **dye** fixation on cellulose)

IT s-Triazine, 2,4-dichloro-, derivs.

RL: USES (Uses)

(reaction with D-glucitol as model for **dye** fixation on cellulose)

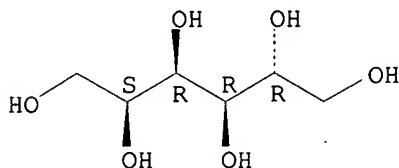


IT 50-70-4  
 RL: USES (Uses)  
 (reaction with chlorotriazine **dyes**, mechanism of, as model  
 for **reactive dye** fixation on cellulose)

IT 50-70-4  
 RL: USES (Uses)  
 (reaction with chlorotriazine **dyes**, mechanism of, as model  
 for **reactive dye** fixation on cellulose)

RN 50-70-4 HCAPLUS  
 CN D-Glucitol (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L15 ANSWER 17 OF 19 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1966:491158 HCAPLUS

DOCUMENT NUMBER: 65:91158

ORIGINAL REFERENCE NO.: 65:17089h,17090c-d

TITLE: Hydrolysis and alcoholysis of **reactive dyes**. III. Sorbitolysis of monochlorotriazine **dyes**

AUTHOR(S): Rys, P.; Zollinger, Hch.

CORPORATE SOURCE: Eidg. Tech. Hochsch., Zurich, Switz.

SOURCE: Helvetica Chimica Acta (1966), 49(1), 761-71

CODEN: HCACAV; ISSN: 0018-019X

DOCUMENT TYPE: Journal

LANGUAGE: German

AB cf. preceding abstrs. Kinetics of competitive reactions of the three monochlorotriazine dyes of the preceding abstr. with water and sorbitol were investigated. Addn. of the nucleophile is rate limiting in dyes without a NH group between the triazine nucleus and the remainder of the mol. When a NH group is present, it is proposed that 2 tautomers are active; in one, addn. of the nucleophile is the slowest step, and in the other, base catalyzed decompn. of the addn. complex is rate limiting. The first acid dissocn. const. of sorbitol is recorded as pKa = 13.14 at 60.degree..

CC 46 (Dyes)

IT **Dyes**

(azo, anilinochloro-s-triazinyl-contg., alcoholysis with glucitol, kinetics of)

IT Reaction kinetics and(or) Velocity

(of alcoholysis of anilinochloro-s-triazinyl-contg. azo **dyes** with glucitol)

IT Alcoholysis

(of anilinochloro-s-triazinyl-contg-azo **dyes** with glucitol, kinetics of)

IT Reaction kinetics and(or) Velocity

(of hydrolysis of **dyes** contg. chloroanilino-s-triazinyl)

IT 50-70-4, Glucitol

(alcoholysis of anilinochloro-s-triazinyl-contg. azo **dyes** by, kinetics of)

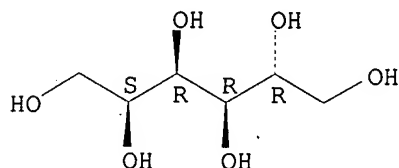
IT 50-70-4, Glucitol

(alcoholysis of anilinochloro-s-triazinyl-contg. azo **dyes** by, kinetics of)

RN 50-70-4 HCAPLUS

CN D-Glucitol (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L15 ANSWER 18 OF 19 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1966:491157 HCAPLUS

DOCUMENT NUMBER: 65:91157

ORIGINAL REFERENCE NO.: 65:17089f-h

TITLE: Hydrolysis and alcoholysis of **reactive dyes**. II. Hydrolysis of monochlorotriazine **dyes**

AUTHOR(S): Datyner, A.; Rys, P.; Zollinger, Hch.

CORPORATE SOURCE: Univ. New South Wales, Kensington, Australia

SOURCE: Helvetica Chimica Acta (1966), 49(1), 755-60

CODEN: HCACAV; ISSN: 0018-019X

DOCUMENT TYPE: Journal

LANGUAGE: German

GI For diagram(s), see printed CA Issue.

AB cf. preceding abstr. Kinetics of hydrolysis of three monochlorotriazine dyes (I-III) were investigated in alk. buffer solns. at 60, 80, and 98.degree. with ionic strength 0.0625. General base concn. had negligible influence and the reaction order with respect to hydroxyl ions was detd. At 6 .times. 10-4 mole/l, these dyes formed aggregates, but practically not at 6 .times. 10-5 mole/l.

CC 46 (Dyes)

IT **Dyes**  
(azo, anilinochloro-s-triazinyl-contg., alcoholysis with glucitol, kinetics of)

IT **Dyes**  
(azo, s-triazine derivs, hydrolysis of, kinetics of)

IT Reaction kinetics and(or) Velocity  
(of alcoholysis of anilinochloro-s-triazinyl-contg. azo **dyes** with glucitol)

IT Alcoholysis  
(of anilinochloro-s-triazinyl-contg-azo **dyes** with glucitol, kinetics of)

IT Hydrolysis  
(of azo **dyes** contg. chloroanilino-s-triazinyl group, kinetics of)

IT Reaction kinetics and(or) Velocity  
(of hydrolysis of **dyes** contg. chloroanilino-s-triazinyl)

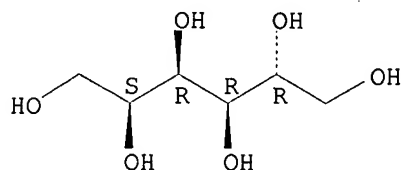
IT 50-70-4, Glucitol  
(alcoholysis of anilinochloro-s-triazinyl-contg. azo **dyes** by, kinetics of)

IT 50-70-4, Glucitol  
(alcoholysis of anilinochloro-s-triazinyl-contg. azo **dyes** by, kinetics of)

RN 50-70-4 HCAPLUS

CN D-Glucitol (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L15 ANSWER 19 OF 19 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1966:425510 HCAPLUS

DOCUMENT NUMBER: 65:25510

ORIGINAL REFERENCE NO.: 65:4728e

TITLE: Calculation of the acidity constant of sorbitol from the sorbitolysis kinetics of **reactive dyes**

AUTHOR(S): Rys, P.; Zollinger, Hch.

CORPORATE SOURCE: Eidgenoess. Tech. Hochschule, Zurich, Switz.

SOURCE: Helvetica Chimica Acta (1966), 49(4), 1406-7

CODEN: HCACAV; ISSN: 0018-019X

DOCUMENT TYPE: Journal

LANGUAGE: German

AB The 1st acid dissocn. const. of sorbitol was redetd. as  $pK_a = 13.00$  at 60.degree..

CC 6 (Phase Equilibria, Chemical Equilibria, and Solutions)

IT 50-70-4, Glucitol  
(ionization const. of)

IT 50-70-4, Glucitol  
(ionization const. of)

RN 50-70-4 HCAPLUS

CN D-Glucitol (9CI) (CA INDEX NAME)

Absolute stereochemistry.

